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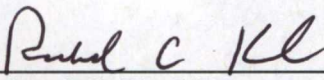


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**FOURTH FIVE-YEAR REVIEW REPORT FOR
LEMBERGER LANDFILL (LEMBERGER FLYASH) &
LEMBERGER TRANSPORT AND RECYCLING SUPERFUND SITES
FRANKLIN TOWNSHIP, MANITOWOC COUNTY, WISCONSIN**



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Date

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LIST OF ACRONYMS

AOC	Administrative Order on Consent
ARAR	applicable or relevant and appropriate requirement
BEHP	bis(2-ethylhexyl)phthalate
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COCs	Contaminants of Concern
CVOC	Chlorinated Volatile Organic Compounds
DMZ	design management zone
EMP	Environmental Monitoring Plan
EPA	United States Environmental Protection Agency
EPE	Environmental Protection Easements
ERC	environmental restrictive covenant
ES	Enforcement Standard
ESD	Explanation of Significant Differences
FYR	Five-Year Review
ICs	Institutional Controls
Lemberger sites	Lemberger Landfill and Lemberger Transport and Recycling
LL	Lemberger Landfill
LSRG	Lemberger Site Remediation Group
LTR	Lemberger Transport and Recycling
MCL	Maximum Contaminant Level
MNA	monitored natural attenuation
NCP	National Contingency Plan
NPL	National Priorities List
NR	Natural Resource
O&M	Operation and Maintenance
Ordinance	Unified Development Ordinance
OU	Operable Unit
PAHs	polyaromatic hydrocarbons
PAL	Preventative Action Limit
PCB	polychlorinated biphenyl
PCOR	Preliminary Closeout Report
PM	Project Manager
PRP	potentially responsible party
QAPP	Quality Assurance Project Plan
River	Branch River
ROD	Record of Decision
RPM	Remedial Project Manager
SWRAU	Sitewide Ready for Anticipated Use
TCA	1,1,1-trichloroethane
TCE	trichloroethylene
UU/UE	unlimited use/unrestricted exposure
VOC	volatile organic compound
WAC	Wisconsin Administrative Code
WDNR	Wisconsin Department of Natural Resources

EXECUTIVE SUMMARY

As previously done in 2000, 2005 and 2010, the U.S. Environmental Protection Agency (EPA) has combined the 2015 five-year review (FYR) reports for the Lemberger Landfill (LL) and Lemberger Transport and Recycling (LTR) Superfund sites (Lemberger sites) into one document. This is the fourth FYR for the Lemberger sites located in Franklin Township, Manitowoc County, Wisconsin. The purpose of this FYR is to review information to determine if the remedy for the Lemberger sites is and will continue to be protective of human health and the environment. The triggering action for this statutory FYR was the signing of the previous FYR on July 14, 2010.

The 21-acre LL site is located approximately one-quarter mile from the affiliated LTR site (see Figure 1). The LL site, formerly a gravel pit, was subsequently used as a township dump from 1940 to 1970. Lemberger Landfill, Inc. operated the LL as a sanitary landfill under a license from the Wisconsin Department of Natural Resources (WDNR) from 1969 to 1976. An estimated 1,750 to 2,500 cubic yards of fly ash were disposed of in the landfill each month. The 16-acre LTR site operated as an unlined disposal area from 1970 to 1976. Wastes disposed of at the site include an estimated 900,000 gallons of wood tar distillates, paint wastes, and other industrial wastes. Farms and wide-spaced rural residences that utilize groundwater for drinking are located near the Lemberger sites, and the general area is used for hunting. The nearby Branch River (River) is used for swimming, fishing, and canoeing.

In 1980, WDNR responded to complaints by nearby residents that leachate from the landfill had seeped onto their properties. In 1985, volatile organic compound (VOC) contamination, including 1,1,1-trichloroethane (TCA) and trichloroethylene (TCE), was detected in seven residential wells northwest of the LTR site at levels that exceeded drinking water standards. During 1993 to 1994, more than 1,500 drums, jars, and gas cylinders were removed from LTR, and the site was fenced. During 1995 to 1996, a cover was constructed over the LTR site.

On September 23, 1991, EPA signed a Record of Decision (ROD) for the Lemberger sites. The 1991 ROD, which covered the LL site and groundwater contamination from both sites, was titled Operable Unit 1 (OU1). This ROD required a groundwater treatment system for sitewide groundwater contamination and a source control action for the LL site. A source control action for the LTR site (OU2) was not included in the 1991 ROD because further characterization was required. It was later determined that the LTR site contained buried drums and landfill hot spots, and, therefore, warranted emergency removal action. In 1993, EPA signed an administrative order on consent (AOC) with the potentially responsible parties (PRPs) to perform removal activities at the LTR site. The PRPs, known as the Lemberger Site Remediation Group (LSRG), had entered into a Consent Decree with EPA in 1992 to undertake the remedial activities at OU1 required by the 1991 ROD. In November 1993, field activities related to the excavation and removal of the drums started, and a Preliminary Closeout Report (PCOR) for OU2 was signed in October 1996 which signified the overall completion of the project. In 1994, EPA determined that all activities required by the AOC were complete and that there was no further risk from OU2. Based on this determination, EPA issued a No Further Action ROD in 1994 for the LTR source control operable unit (OU2).

For OU1, the pump and treat system operated from 1997 until 2006. Because groundwater contaminant concentrations were decreasing, and because it was believed that attenuation was occurring primarily through natural processes, EPA approved a temporary cessation of pumping in order to perform a monitored natural attenuation (MNA) engineering demonstration project in a 2006 Explanation of Significant Differences (ESD). The MNA study was performed from August 2006 through July 2008. The initial results did not indicate that MNA would be effective at the Lemberger sites, and it was determined that additional data was needed in order to determine if MNA could be a permanent remedy at the sites. Additional groundwater monitoring data gathered since 2008 indicates the groundwater plume appears to be stable in the far down-gradient plume (also called the “far field plume”), subject to seasonal-type variations. A more thorough MNA study of the nearer plume (also called the “near field plume”) was conducted from early 2013 through early 2015. EPA and WDNR will use this data to determine whether MNA is a viable remedy for the remaining groundwater contamination at the sites.

The remedies at both the LTR and the LL sites are protective of human health and the environment. Construction activities are complete, and the landfill covers, fences, and institutional controls (ICs) are preventing direct contact with the contaminated wastes and soil. Groundwater underlying the sites is routinely monitored and off-site existing private wells all meet Wisconsin’s Special Casing Zone regulation set forth for the sites. Long-term ICs for soil and groundwater have been implemented in the form of environmental restrictive covenants (ERCs), deed restrictions and state restrictions that will ensure long-term protectiveness of human health and the environment.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site Name:	Lemberger Transport and Recycling site and Lemberger Landfill site	
EPA ID:	WID056247208 and WID980901243	
Region: 5	State: WI	City/County: Franklin Township/Manitowoc County
SITE STATUS		
NPL Status: Final		
Multiple OUs? Yes	Has the site achieved construction completion? Yes	
REVIEW STATUS		
Lead agency: EPA		
Author name (Federal or State Project Manager): Demaree Collier		
Author affiliation: EPA, Region 5		
Review period: 7/18/2014 - 7/14/2015		
Date of site inspection: 6/11/2015		
Type of review: Statutory		
Review number: 4		
Triggering action date: 7/14/2010		
Due date (five years after triggering action date): 7/14/2015		

OU1, OU2, Sitewide Protectiveness Statement
<i>Protectiveness Determination:</i> Protective
<i>Protectiveness Statement:</i> The remedies at both the LTR and the LL sites are protective of human health and the environment. Construction activities are complete, and the landfill covers, fences, and ICs are preventing direct contact with the contaminated wastes and soil. Groundwater underlying the sites is routinely monitored and off-site existing private wells all meet Wisconsin's Special Casing Zone regulation set forth for the sites. Long-term ICs for soil and groundwater have been implemented in the form of ERCs, deed restrictions and state restrictions that will ensure long-term protectiveness of human health and the environment.

I. INTRODUCTION

The purpose of a FYR is to evaluate the implementation and performance of a remedy in order to determine if the remedy will continue to be protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in FYR reports. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

EPA prepares FYRs pursuant to Section 121 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Contingency Plan (NCP). CERCLA Section 121 states:

"If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews."

EPA interpreted this requirement further in the NCP; 40 Code of Federal Regulations Section 300.430(f)(4)(ii) states:

"If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such actions no less often than every five years after the initiation of the selected remedial action."

EPA conducted a FYR on the remedy implemented at the Lemberger Landfill and Lemberger Transport and Recycling Superfund sites located in Franklin Township, Manitowoc County, Wisconsin. EPA is the lead agency for developing and implementing the remedy for the Lemberger sites. WDNR, as the support agency representing the State of Wisconsin, has reviewed all supporting documentation and provided input to EPA during the FYR process.

This is the fourth FYR for the Lemberger sites. The triggering action for this statutory review is the completion date of the previous FYR. The FYR is required due to the fact that hazardous substances, pollutants or contaminants remain at the Lemberger sites above levels that allow for unlimited use and unrestricted exposure (UU/UE). The Lemberger sites consist of two OUs, both of which are addressed in this FYR.

II. PROGRESS SINCE THE LAST REVIEW

Table 1: Protectiveness Determinations/Statements from the 2010 FYR

OU #	Protectiveness Determination	Protectiveness Statement
1 and 2	Protective	<p>The remedy at LL and LTR currently protects human health and the environment for the following reasons: the site covers, fence, and institutional controls are preventing direct contact with the contaminated wastes and soil (OU #1 and OU #2); groundwater monitoring has defined the extent of the contamination along the most likely migration pathways (OU #1); existing private wells are being sampled regularly (OU #1); and the State of Wisconsin regulates installation of new wells. In order for the remedy at LL and LTR to be protective in the long-term, the following actions need to be taken to improve OU #1: revise the Quality Assurance Project Plan (QAPP) with updated standard operating procedures for analysis of polychlorinated biphenyls (PCBs), carcinogenic polyaromatic hydrocarbons (PAHs), pentachlorophenol and bis(2-ethylhexyl)phthalate (BEHP) in groundwater; update the groundwater monitoring plan; establish a contingency for re-initiation of groundwater pumping; establish groundwater chlorinated volatile organic compound (CVOC) concentrations that will be protective of aquatic life in Branch Creek, and, if necessary, determine the rate of migration of CVOCs into Branch Creek; complete review of the need for continued leachate withdrawal at LL, and issue an ESD, if necessary, in which EPA will decide whether it is protective to change certain ROD requirements relative to the slurry wall and leachate withdrawal; evaluate options to improve source area groundwater capture or treatment, and issue an ESD, if necessary.</p>
Sitewide	Protective	<p>The remedy at LL and LTR currently protects human health and the environment for the following reasons: the site covers, fence, and institutional controls are preventing direct contact with the contaminated wastes and soil (OU #1 and OU #2); groundwater monitoring has defined the extent of the contamination along the most likely migration pathways (OU #1); existing private wells are being sampled regularly (OU #1); and the State of Wisconsin regulates installation of new wells. In order for the remedy at LL and LTR to be protective in the long-term, the following actions need to be taken to improve OU #1: revise the QAPP with updated standard operating procedures for analysis of PCBs, carcinogenic PAHs, pentachlorophenol and BEHP in groundwater; update the groundwater monitoring plan; establish a contingency for re-initiation of groundwater pumping; establish groundwater CVOC concentrations that will be protective of aquatic life in Branch Creek, and, if necessary, determine the rate of migration of CVOCs into Branch Creek; complete review of the need for continued leachate withdrawal at LL, and issue an ESD, if necessary, in which EPA will decide whether it is protective to change certain ROD requirements relative to the slurry wall and leachate withdrawal; evaluate options to improve source area groundwater capture or treatment, and issue an ESD, if necessary.</p>

Table 2: Status of Recommendations from the 2010 FYR

OU #	Issue	Recommendations/ Follow-up Actions	Party Responsible	Over- sight Party	Original Milestone Date	Current Status	Completion Date (if applicable)
OU1	1. Data quality (current analytical methods for PCBs, PAHs and pentachlorophenol are not sensitive enough, and laboratory contamination is apparently causing false BEHP detections)	Revise the QAPP with updated standard operating procedures for analysis of PCBs, PAHs, pentachlorophenol and BEHP in groundwater	PRP	EPA	6/30/2011	Completed	10/9/2012
OU1	2. Groundwater monitoring to bound the contamination (possibly insufficient monitoring of down-gradient plume and bedrock fracture network, and bedrock surface contour map is out of date)	Update the groundwater monitoring plan	PRP	EPA	6/30/2011	Completed	3/27/2014
OU1	3. Protection of groundwater for private well users (may have to expand the well restriction zone, possibly insufficient sentinel wells, westward shift in down-gradient contamination and plan does not add new private wells)	Update the groundwater monitoring plan and establish a contingency for re-initiation of groundwater pumping	PRP and EPA	EPA	10/30/2010	Completed	3/27/2014

OU #	Issue	Recommendations/ Follow-up Actions	Party Responsible	Over- sight Party	Original Milestone Date	Current Status	Completion Date (if applicable)
OU1	4. Protection of aquatic life in the Branch River (VOC groundwater concentrations protective of surface water have not been derived, and quantity of VOCs migrating into the Branch River has not been determined)	Establish groundwater VOC concentrations that are protective of aquatic life in Branch Creek. If necessary, determine the rate of VOCs migrating into Branch Creek	PRP	EPA	6/30/2011	Considered But Not Implemented	9/10/2010
OU1	5. Containment of LL leachate (proposed discontinuation of leachate withdrawal is inconsistent with ROD provisions)	Complete review of the need for continued leachate withdrawal at LL, and issue an ESD, if necessary, in which EPA will decide whether it is protective to change certain ROD requirements relative to the slurry wall and leachate withdrawal	EPA	EPA	12/30/2010	Completed	9/3/2014
OU1	6. Operation, maintenance and monitoring of the pump-and-treat system (address deficiencies)	Evaluate options to improve source area groundwater capture or treatment; Issue an ESD, if necessary	PRP and EPA	EPA/ State	6/30/2011	Completed	9/3/2014
OU1	7. Evaluation of LTR source area treatment and containment alternatives (need further evaluation of pump-and-treat expansion and use of alternative technologies)	Evaluate options to improve source area groundwater capture or treatment; Issue an ESD, if necessary	PRP and EPA	EPA/ State	6/30/2011	Completed	9/3/2014

Recommendation 1

An updated QAPP with revised data quality objectives was approved and implemented. The QAPP updated the standard operating procedures for analyses of PCBs, PAHs, pentachlorophenol, and BEHP in groundwater to achieve lower detection limits.

Recommendation 2

The groundwater monitoring network was expanded with the addition of several wells and the revision of the bedrock surface contour map (see Figure 2). The groundwater monitoring data gathered since 2008 indicates the groundwater plume appears to be stable in this portion of the far field plume, subject to seasonal-type variations.

Recommendation 3

The revised monitoring plan included provisions for adding private wells to the monitoring plan. A Special Casing Zone under Wisconsin Administrative Code (WAC) 812 was implemented requiring the following: permission from WDNR before installation of new wells and the screened or open portion of any water supply well should occur below 250 feet in depth. The LSRG has replaced numerous existing private wells to ensure they satisfy Special Casing Zone requirements. WDNR also requires permission to install groundwater wells within 1200 feet of the waste boundaries at the Lemberger sites.

Recommendation 4

WDNR evaluated the potential for impact on the River; no concerns were noted by WDNR (see Attachment 1). Therefore, there was no need to establish groundwater VOC concentrations that are protective of aquatic life, and this recommendation was not implemented.

Recommendation 5

In December 2013, the PRPs submitted a LL Report. This report concluded there are no significant gaps in the slurry wall based on data collected from both sides of the wall. EPA requested additional monitoring to confirm containment in the shallow groundwater adjacent to LL, and this will continue in accordance with the approved February 2014 Environmental Monitoring Plan (EMP). EPA will continue to review groundwater monitoring data to ensure groundwater is contained.

Recommendations 6 and 7

The pump and treat system is being maintained in stasis while a second MNA study is conducted at the sites. In 2012, EPA and WDNR suggested the PRPs evaluate whether MNA would address the near field plume contamination as an alternative to conducting an evaluation of options to improve source area groundwater capture or treatment.

Additional monitoring wells have been installed and additional data have been collected relative to MNA in the near field plume down-gradient of the LTR. A report focusing on the results of the second MNA study is currently being reviewed by EPA and is expected to address concerns identified in the Issues/Recommendations and Follow-up Actions sections of this FYR.

Remedy Implementation Activities

MNA Study

In 2012, the LSRG proposed to further study the near field contaminant plume to determine if MNA was occurring near the Lemberger sites. EPA and WDNR approved the Work Plan for this study in 2013.

The MNA report is currently being reviewed by EPA and WDNR. After reviewing this study, EPA and WDNR will consider how the remedy meets current ROD groundwater standard requirements, which are WDNR Preventative Action Limits (PALs) at the waste boundary, and will consider the possibility of revising those requirements to a less restrictive standard. Alternative groundwater standard requirements to be considered are WDNR design management zone (DMZ) boundaries and a change from WDNR PALs to WDNR Enforcement Standards (ESs).

Institutional Controls

ICs in the form of deed restrictions are required by the 1991 ROD to restrict property use, maintain the integrity of the remedy, and assure long-term protectiveness for areas which do not allow for UU/UE. As part of this FYR, EPA, WDNR, and the PRPs reviewed the ICs in place at the Lemberger sites. The following summarizes the current ICs at the Lemberger sites:

- Two Environmental Protection Easement (EPE) and Declaration of Restrictive Covenants were signed on May 20, 2009 and June 10, 2010 to prevent exposures to and disturbance of wastes and contaminated soils and to prevent any use of groundwater at both the LL and LTR sites (see Attachment 2).
- Various deed and use restrictions with property owners have been placed across both the LL and LTR sites (see Attachment 3).
- A contaminated groundwater plume exists at the Lemberger sites, which appears to be stable in the far field plume. WDNR has declared a Special Casing Zone for the Lemberger sites, requiring permission from WDNR before installation of new wells and requiring the screened or open portion of any water supply well to occur below 250 feet in depth. The LSRG has replaced numerous existing private wells to ensure they satisfy the Special Casing Zone requirements. WDNR also requires special permission to install a groundwater well within 1200 feet of the waste boundaries at the LL and LTR sites. Use-restriction agreements were reached between LSRG and landowners for a number of properties, and these use restrictions were recorded with the deeds. Figure 3 illustrates these three controls on a base map, as well as the footprint of the groundwater plume. The groundwater plume body, as defined by the volume that exceeds the Maximum Contaminant Levels (MCLs) and NR 140 ESs and PALs, lies completely within these controlled properties. The groundwater plume body defined by the MCLs and ESs is covered by multiple ICs, except for a small region near well RM-03D, which is governed by a single IC. Figure 4 illustrates a north-south cross-section through the plume, which shows that the 250-foot Special Casing Zone fully includes the groundwater plume body. Therefore, although a groundwater plume exceeding ROD cleanup goals exists, construction activities and ICs have achieved the goal of preventing exposures.
- The Town of Franklin adopted a Unified Development Ordinance (Ordinance) on October 14, 2008, which was addressed in the 2009 IC Plan. The Ordinance was revised on January 12, 2011. The Lemberger sites and neighboring parcels within the Town of Franklin are zoned as "General Agriculture" or "Exclusive Agriculture" (see Attachment 4).
- Both Lemberger sites achieved the Sitewide Ready for Anticipated Reuse (SWRAU) measure on June 5, 2015.

Table 3: Summary of Planned and/or Implemented ICs

Media, engineered controls, and areas that do not support UU/UE based on current conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date (or planned)
Landfill Area	Yes	Yes	See Figure 3	Prevent any disturbance to the cap or landfilled materials	<ul style="list-style-type: none"> • EPE and Declaration of Restrictive Covenant, site owners and LSRG, Document 1065459, May 20, 2009, and Document 1083356, June 10, 2010, filed in Manitowoc County • Ordinance for the Town of Franklin – January 12, 2011 • LSRG notification of an agreement with easement holders • WAC NR 506.085 and WAC NR 812
Groundwater Underlying the Sites	Yes	Yes	See Figure 3	Prohibit contact with or any use of the groundwater	<ul style="list-style-type: none"> • EPE and Declaration of Restrictive Covenant, site owners and LSRG, Document 1065459, May 20, 2009, and Document 1083356, June 10, 2010, filed in Manitowoc County • Ordinance for the Town of Franklin – January 12, 2011 • LSRG notification of an agreement with easement holders • WAC NR 506.085 and WAC NR 812
Off-site Groundwater	Yes	Yes	See Figure 3	Prohibit contact with or any use of contaminated groundwater plume off-site	<ul style="list-style-type: none"> • Protected by Wisconsin Special Casing Zone WAC NR 812.09(4); • Protected by WAC NR 812.10(2); • Protected by deed restrictions; • Protected by purchase and/or long-term lease by PRPs

Current Compliance

Based on inspections and discussions with WDNR, EPA is not aware of site or media uses which are not consistent with the stated objectives of the ICs. The remedy appears to be functioning as intended. Site uses which are inconsistent with the implemented ICs or remedy IC objectives were not noted during the FYR site inspection.

Long-Term Stewardship

Since compliance with ICs is necessary to ensure the protectiveness of the remedy, planning for long-term stewardship is required to ensure that ICs are maintained, monitored, and enforced so the remedy

continues to function as intended. Long-term stewardship involves ensuring effective procedures are in place to properly maintain and monitor the Lemberger sites. Long-term stewardship will ensure effective ICs are maintained and monitored and the remedy continues to function as intended with regard to ICs.

The July 2009 IC Plan submitted by LSRG includes procedures to ensure long-term IC stewardship including:

- regular inspections of the engineering controls and access controls at the Lemberger sites;
- regular reviews of ICs and annual ICs reports; and
- review and certification to EPA that ICs remain in place and are effective.

Specifically, the LSRG committed to perform the following to maintain existing ICs:

- obtain and record additional restrictive covenants when necessary;
- continue to work with the Town of Franklin Planning Commissions to learn of proposed changes to land use and development plans;
- continue to work with WDNR on special casing depth area requirements;
- request information on new and existing wells during resident contacts for well sampling;
- notify EPA and WDNR as soon as practicable upon discovery of any significant activity that is inconsistent with IC objectives;
- work with EPA and WDNR to determine a plan of action to rectify problems;
- ensure the Lemberger sites are listed on the WDNR database, and the database contains appropriate documents and identifies appropriate and relevant continuing obligations;
- perform a visual field survey to locate new development or property uses in the area;
- submit a report to EPA evaluating the effectiveness of the ICs as requested; and
- evaluate whether a formal petition from a zoning change is necessary prior to deletion from the National Priorities List (NPL).

Providing a report on the effectiveness of ICs every five years should be sufficient for the following reasons:

- WDNR should be notified of new wells being installed in the site area;
- LSRG periodically communicates with residential well owners, property owners, and the Town of Franklin;
- LSRG representatives are regularly on-site for operation and maintenance (O&M) activities; and
- LSRG has committed to notify EPA and WDNR of any significant activity that is inconsistent with the IC objectives.

For this FYR, the PRPs have reviewed all of the ICs in place at the Lemberger sites and submitted an updated IC map and reporting of the ICs. EPA reviewed this report and determined that all of the ICs are in place and functioning as intended.

System Operation/Operation and Maintenance Activities

An EMP submitted by LSRG was approved by EPA and WDNR on March 27, 1994. The EMP provides details of future groundwater, surface water, leachate, and landfill gas and treatment system effluent monitoring and reporting at the Lemberger sites. The monitoring program includes additional sampling

and analytical work associated with the MNA study. O&M reports are submitted as part of the EMP to support the conclusion that the remedies currently in place at the Lemberger sites are effective and the Lemberger sites do not pose a threat to human health or the environment.

III. FIVE-YEAR REVIEW PROCESS

Administrative Components

The FYR for the Lemberger sites was led by Demaree Collier, EPA Remedial Project Manager (RPM), with support activities provided by Susan Pastor, EPA Community Involvement Coordinator, and Gary Edelstein, WDNR Project Manager (PM). The review, which began on July 18, 2014, consisted of the following components:

- Community Notification and Involvement;
- Document Review;
- Data Review;
- Site Inspection; and
- FYR Report Development and Review.

Community Notification and Involvement

As shown in Attachment 5, a notice was published in the Manitowoc Herald Times Reporter on August 18, 2014, stating that a FYR was being conducted and inviting the public to submit any input to EPA. No public comments were received. The FYR report will be made available at the Lemberger sites' information repository located at the Manitowoc Public Library, 707 Quay St., Manitowoc, Wisconsin, and the Whitelaw Village Hall, 147 W. Menasha Avenue, Whitelaw, Wisconsin.

Document Review

This FYR consisted of a review of relevant site-specific documents including O&M reports and groundwater monitoring data. Applicable groundwater cleanup standards, as listed in the 1991 ROD, were also reviewed.

Data Review

Environmental monitoring was conducted quarterly at the Lemberger sites since remedial actions were implemented in 1997. Since the last FYR, environmental monitoring was performed specific to the approved 2013 MNA study. Historically, TCE, TCA, and VOC breakdown products have been detected in the plume monitoring wells, and continue to be detected sporadically in groundwater collected from the shallow monitoring wells. Attachment 6 shows trend plots of these contaminants for each monitoring well. The NR 140 TCE ES and PAL are used to depict the extent of the VOC plume shown in Figure 2. The most current sampling results from the December 2014 O&M Report show the following:

- Background groundwater was monitored at bedrock well RM-102D located approximately 500 feet south of the LTR site. This well was sampled quarterly from October 2013 through June 2014, and VOCs were not detected. The groundwater analytical data from the 2014 report is provided as Attachment 7.

- The LTR plume was monitored by 40 wells during the reporting period, and VOC concentrations are consistent with historical data. ES exceedances occurred at 15 wells, with 9 of these wells located around the perimeter of the LTR.
- Although there is a groundwater plume exceeding ROD cleanup goals, construction activities and ICs have achieved the goal of preventing exposures. It should also be noted that the 2010 FYR determined there is no off-site risk from vapor intrusion derived from the contaminated groundwater.
- Seven sentinel wells were monitored during the reporting period, and VOC concentrations remain below the ES at all wells except RM-3D, RM-3XXD, and RM-403XD.

A supplemental monitoring program at the LL site was initiated in May 2014 to evaluate shallow groundwater in the vicinity of the site. This monitoring program will continue on a quarterly basis until summer 2015. Data will be evaluated by EPA and WDNR to determine if the shutdown of the pumping system at the LL site had an impact on surrounding groundwater.

Site Inspection

EPA conducted the FYR site inspection on June 11, 2015. Demaree Collier, EPA RPM, Kevin McKnight, WDNR PM, and staff from the PRPs' contractor, TRC, were in attendance. The purpose of the inspection was to assess the protectiveness of the remedy.

EPA and WDNR conducted a visual inspection of the remedy. The Site Inspection Checklist is presented in Attachment 8. No issues were noted during the inspection.

Interviews

No interviews were conducted during this FYR.

IV. TECHNICAL ASSESSMENT

Question A: Is the remedy functioning as intended by the decision documents?

Yes. Review of past FYRs, site sampling plans and data, applicable or relevant and appropriate requirements (ARARs), risk assumptions, and the results of the FYR site inspection all indicate the remedy is functioning as intended by the 1991 and 1994 RODs. EPA is evaluating supplemental groundwater monitoring data to determine whether shutting down the groundwater pump and treat system at the LL site had an impact on surrounding groundwater, whether MNA is a viable remedy, and whether to change the ROD groundwater standard requirements to less restrictive standards. When this evaluation is completed, EPA will evaluate the need to amend the RODs and/or whether a technical impracticability waiver relating to remaining groundwater contamination at the Lemberger sites might be appropriate. ICs are in place preventing risk to humans and the environment by preventing exposure to contaminated groundwater. Current monitoring activities are being conducted and are adequate to determine the protectiveness of the remedy.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives used at the time of the remedy selection still valid?

Yes. The exposure assumptions used at the time of the remedy selection are still valid. The Lemberger landfill caps, access restrictions, and ICs continue to address the direct contact risks from contaminated wastes and soils. There have been no documented releases to the surface soil or surface water near the Lemberger sites since construction was completed. There have been no major changes in physical conditions at the Lemberger sites or the quality of groundwater at the Lemberger sites that would affect the protectiveness of the remedy. As the remedial work at the Lemberger sites has been completed, the primary ARARs for the groundwater contamination cited in the 1991 and 1994 RODs have been met. If it is determined that the RODs need to be amended, the ARARs will be re-evaluated to document any new ARARs at the Lemberger sites. All federal and state requirements are being met. No new ARARs need to be considered at this time. There have been no changes in the toxicity factors for any of the contaminants of concern (COCs).

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No. There is no current information that would suggest that the selected remedy is not protective.

Technical Assessment Summary

According to the analytical data reviewed and the site inspection, the remedy is functioning as intended by the site decision documents based on the following:

- there have been no changes in the physical conditions of the Lemberger sites that would affect the protectiveness of the remedy;
- there have been no changes in the toxicity factors for the COCs that were used in the risk assessment; and
- there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy.

V. ISSUES/RECOMMENDATIONS AND FOLLOW-UP ACTIONS

No issues were identified during this FYR that affect the current or future protectiveness of the Lemberger sites' remedies. The following recommendations may improve the effectiveness of the remedies, but do not affect current or future protectiveness:

1. consider how the remedy meets current ROD groundwater standard requirements, which are WDNR PALs at the waste boundary, and consider the possibility of revising those requirements to a less restrictive standard such as the WDNR DMZ boundaries and a change from WDNR PALs to ESs;
2. evaluate the latest MNA report (received spring 2015) and determine whether MNA is a viable remedy for the remaining groundwater contamination at the Lemberger sites; and
3. evaluate supplemental groundwater monitoring data being collected to determine whether the shutdown of the pumping system at the LL had an impact on surrounding groundwater.

VI. PROTECTIVENESS STATEMENT

Sitewide Protectiveness Statement

Protectiveness Determination:

Protective

Protectiveness Statement:

The remedies at both the LTR and the LL sites are protective of human health and the environment. Construction activities are complete, and the landfill covers, fences, and ICs are preventing direct contact with the contaminated wastes and soil. Groundwater underlying the sites is routinely monitored and off-site existing private wells all meet Wisconsin's Special Casing Zone regulation set forth for the sites. Long-term ICs for soil and groundwater have been implemented in the form of ERCs, deed restrictions and state restrictions that will ensure long-term protectiveness of human health and the environment.

VII. NEXT REVIEW

The next FYR report for the Lemberger Landfill and Lemberger Transport and Recycling Superfund sites is required five years from the completion date of this review.

Figure 1 – Site Map

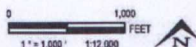


LEGEND

- SAMPLE AND MONITORING LOCATIONS**
- BEDROCK BORING
 - GW COLLECTION SUMP (GWC)
 - ✕ GW EXTRACTION WELL (EW)
 - GW OBSERVATION WELL (OW)
 - ✕ LEACHATE HEAD WELL (LH)
 - ✕ LEACHATE WITHDRAWAL WELL (LW)
 - MONITORING WELL (RM)
 - RESIDENTIAL WELL (GR)
- LANDFILL AREA

NOTES

1. AERIAL IMAGERY FROM MANITOWOC COUNTY, 2010
2. MAP COORDINATES ARE WISCONSIN STATE PLANE, SOUTH ZONE, NAD 83, US SURVEY FOOT.



PROJECT

LEMBERGER SITES
TOWN OF FRANKLIN, WISCONSIN

SHEET TITLE:

O&M PROGRESS REPORT NO. 24
SITE FEATURES MAP

DRAWN BY:

PAPEZ J

SCALE:

AS NOTED

PROJ. NO.:

211761-007

CHECKED BY:

WESTOVER M

FILE NO.:

211761-07-001a.mxd

APPROVED BY:

WEDEKIND J

DATE PRINTED:

DEC 08 2014

FIGURE 1

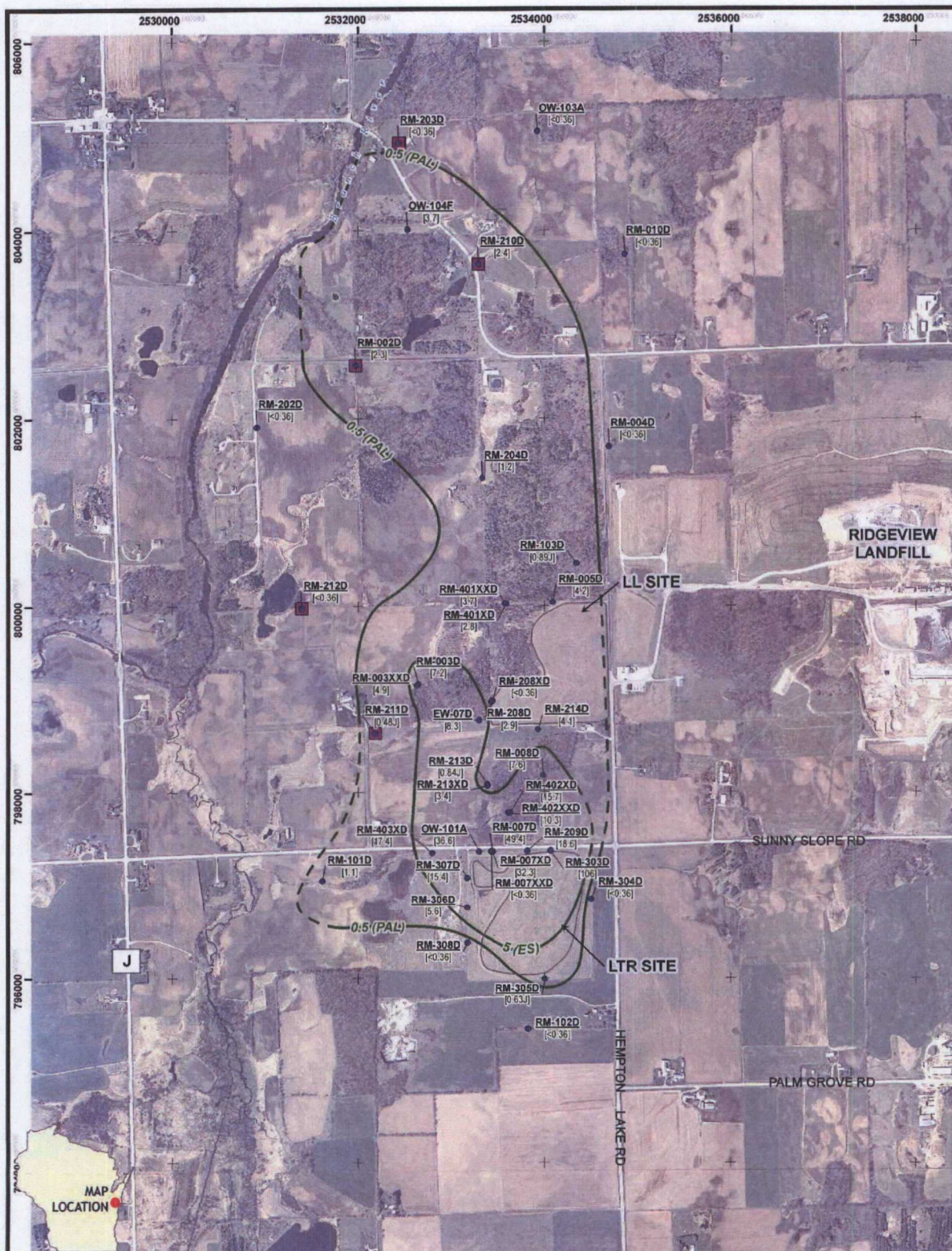
DATE:

DECEMBER 2014



708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trcsolutions.com

Figure 2 – Monitoring Well Map



LEGEND

- SAMPLED MONITORING LOCATION
- SENTINEL WELL
- LANDFILL AREA
- 5 (ES) - TCE ISO-CONCENTRATION (DASHED WHERE INFERRED)
- (<0.36) TCE CONCENTRATION (µg/L)

NOTES

1. AERIAL IMAGERY FROM MANITOWOC COUNTY, 2010.
2. MAP COORDINATES: WISCONSIN STATE PLANE, SOUTH ZONE, NAD83, US SURVEY FOOT.
3. J = RESULT IS BETWEEN THE LIMIT OF DETECTION (LOD) AND LIMIT OF QUANTITATION (LOQ).
4. NON-DETECT RESULTS ARE REPORTED AS "<LOD" (e.g. "<0.36" WHERE THE LOD IS 0.36 µg/L).
5. TCE WAS NOT DETECTED IN RESIDENTIAL WELL SAMPLES DURING THE REPORTING PERIOD. RESIDENTIAL WELL RESULTS ARE NOT USED FOR CONTOURING.
6. THE HIGHEST OBSERVED CONCENTRATION AT EACH WELL NEST WAS USED TO CONTOUR TCE CONCENTRATIONS.

PROJECT

LEMBERGER SITES
TOWN OF FRANKLIN, WISCONSIN

SHEET TITLE:

O&M PROGRESS REPORT NO. 24
TCE CONCENTRATIONS
LGU AND BEDROCK UNIT-SEPTEMBER 2013

DRAWN BY:

PAPEZ J

SCALE:

AS NOTED

PROJ. NO.:

211761-002

CHECKED BY:

WESTOVER M

FILE NO.:

211761-02-004a.mxd

APPROVED BY:

WEEKEND J

DATE PRINTED:

DEC 08 2014

DATE:

DECEMBER 2014



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Figure 3 – IC Map

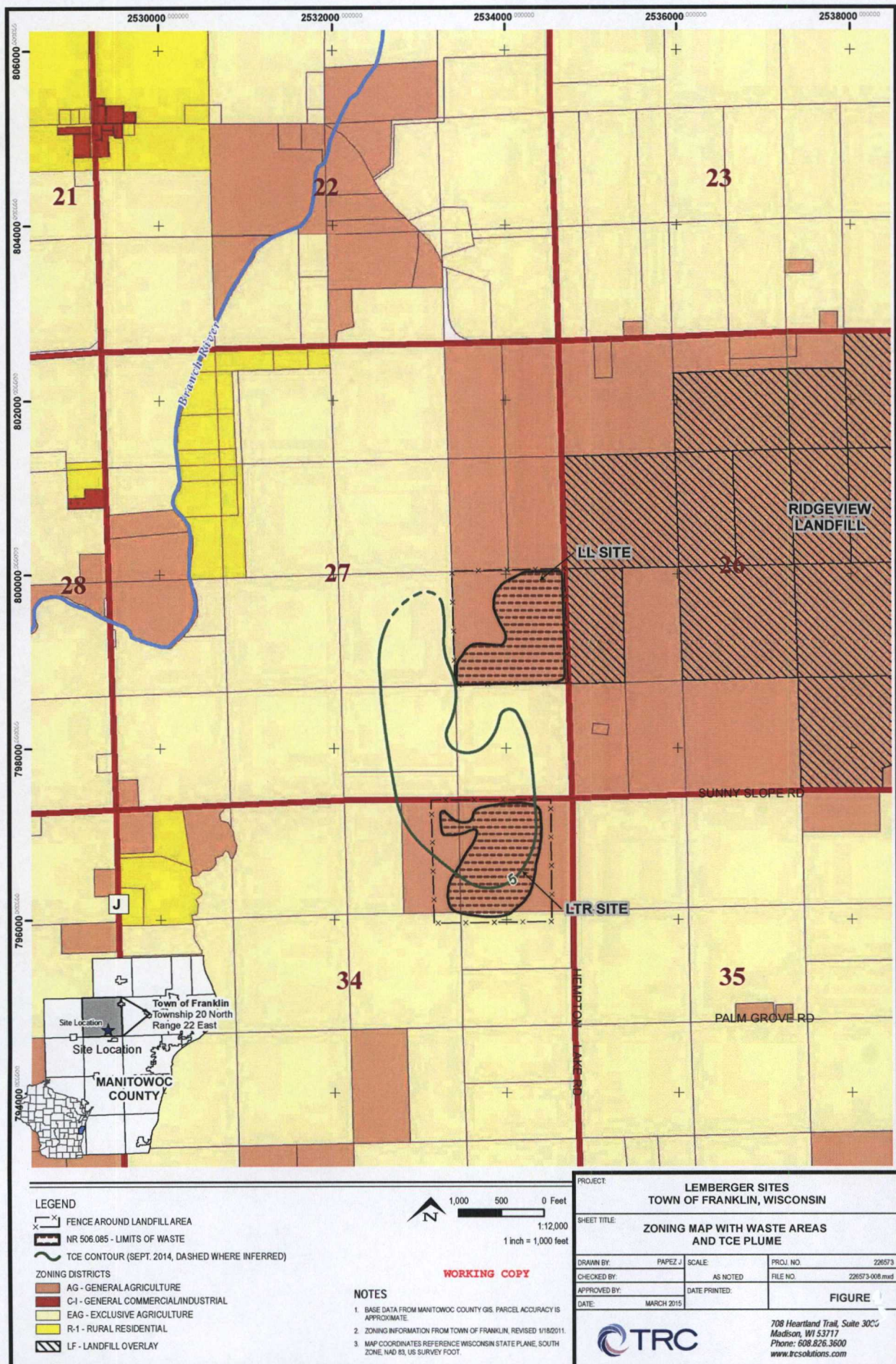
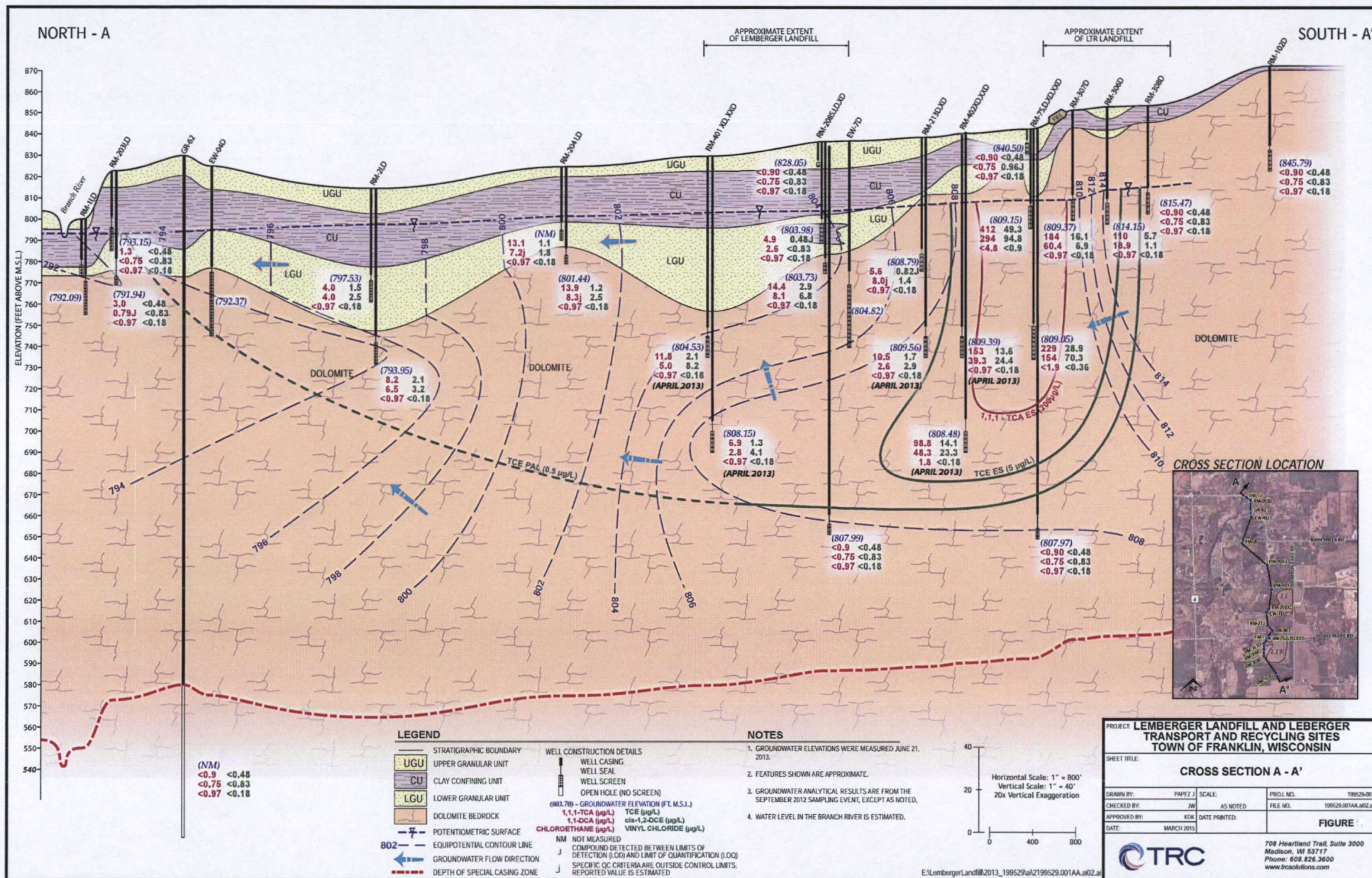


Figure 4 – Cross Section Map



APPENDIX A – EXISTING SITE INFORMATION

A. SITE CHRONOLOGY

Table 1: Site Chronology

EVENT	DATE
LL used as township dump	1940 -1969
LL operated as a licensed sanitary landfill	1969 -1976
LTR operated as a licensed industrial waste disposal facility	1970 -1976
Citizen complaints of leachate releases at LL	1980
EPA added LTR to Superfund NPL	September 1984
Citizen complaints received regarding drinking water, WDNR sampled nearby residential wells and replaced seven wells with deeper wells	1985
EPA added LL to Superfund NPL	June 1986
EPA conducted Remedial Investigation/Feasibility Study (RI/FS)	1988 -1992
EPA signed a ROD for LL source area containment (capping, slurry wall and leachate withdrawal) and LL and LTR groundwater cleanup by pump-and-treat (OU1)	September 23, 1991
Consent decree (CD) requiring the LSRG to implement OU1 was entered in court	October 22, 1992
EPA issued AOC requiring the LSRG to implement containment, treatment, and waste removal at LTR source area (OU2)	July 1993
EPA signed No Further Action ROD for LTR	September 1994
EPA issued Preliminary Closeout Report for LL	September 9, 1996
EPA issued Preliminary Closeout Report for LTR	October 22, 1996
LSRG initiated groundwater pump and treat and leachate withdrawal	March 1997
EPA issued first Five-Year Review	September 27, 2000
LSRG initiated operation of expanded pump and treat, adding four additional pumping wells to contain the LTR source area groundwater	December 2001
EPA issued second Five-Year Review	September 21, 2005
With EPA approval, LSRG temporarily ceased groundwater pump and treat to conduct an MNA study and evaluate the effectiveness of pump and treat	August 2006
With EPA approval, LSRG temporarily ceased leachate withdrawal at LL to perform leachate head demonstration project	December 2008
LSRG submitted draft MNA Engineering Demonstration Project (MNA Report)	December 2008
EPA, WDNR and LSRG evaluated relative effectiveness of MNA, pump and treat, and other technologies	December 2008
LSRG submitted report recommending permanent cessation of leachate withdrawal at LL subject to continued monitoring and a contingency to reinitiate	February 2010
QAPP approved	October 9, 2012
MNA Study Work Plan approved	April 5, 2013
EMP approved	March 27, 2014
Achieved SWRAU	June 5, 2015

B. BACKGROUND

Physical Characteristics

The LL fence encloses approximately 40 acres of land, of which 21 acres were used for disposal. The LTR fence also encloses approximately 40 acres, of which 16 were used for disposal (see Figure 1). The terrain of the general area is rolling to hilly, sloping to the west and northwest, with numerous wetlands. According to the RI, there are wetlands within 100-feet of LL. The River, which drains into Lake Michigan, is located about 3,000-feet west of LL and 3,500-feet northwest of LTR.

The Lemberger sites are geologically located within an interlobate glacial geomorphology characterized by alternating and random sequences and deposits of sand, gravel, and clay soils. Near the Lemberger sites, there are two distinct sand and gravel deposits referred to as the upper granular unit and the lower granular unit (LGU), which are generally separated by a clay unit. Below the LGU lies Niagara Formation dolomitic limestone bedrock, described as grayish-white massive to thinly-bedded sedimentary rock with highly-weathered surfaces.

Hydrology

There are two groundwater systems of concern at the Lemberger sites, a localized perched system called the upper groundwater system (UGS), and a more regional unit called the lower groundwater system (LGS). The UGS refers to perched groundwater lying atop a clay layer above the LGU. The UGS may be a single, interconnected aquifer or may comprise several, discontinuous perched zones. The UGS is also present above the bedrock with no intervening clay layer at the southeastern corner of LL and north side of LTR and within bedrock along the eastern side of LTR. Mapping of groundwater heads in the UGS in the vicinity of the Lemberger sites indicates flows are to the west with some convergence toward the southwest corner of LL.

The LGS consists of the upper bedrock and saturated portions of the overlying dense sandy gravel and gravely sand of the LGU. LTR is located on the flank of a bedrock ridge, which reaches the surface just a few hundred feet south and east of LTR and slopes downward to the northwest. As a result, the LGU is not saturated in the vicinity of LTR and the eastern side of LL. The top of the water table is in the LGU starting 0.2 mile northwest of LTR, and on the western side of LL. The top of the LGS water table occurs from 10 to 40 feet below the top of the bedrock in the vicinity of LTR. As is generally the case, the upper part of the bedrock is more weathered and fractured, and fracture frequency decreases with depth. As a result, the permeability of the LGS is relatively low at and near LTR. However, horizontal and vertical fractures are present and provide significant migration pathways.

Contaminated groundwater from LTR migrates to the north and northwest through preferential pathways in the bedrock. In most RI borings, fractured and massive bedrock zones were found to be interlayered. The bedrock groundwater migrates into the LGU in the general vicinity of LL as the top of the bedrock slopes downward north of LTR. The contaminated groundwater in the LGS migrates to the north and northwest in the relatively permeable LGU and upper bedrock.

Land and Resource Use

The Lemberger sites are located in a lightly-populated rural area in the vicinity of the Ridgeview Landfill. The Ridgeview Landfill is currently operating and is permitted to accept non-hazardous

municipal, commercial, and general industrial waste. The Lemberger sites are approximately 1,000 feet apart. Other land in the vicinity is generally undeveloped, is used for agriculture or widely-spaced rural residences. Some land has also been used for rock quarrying and rubble disposal. All residences in the area rely on groundwater for drinking and other residential uses. The RI reported the Niagara dolomite aquifer serves as the primary drinking water source in the area; 2,700 people used this aquifer for drinking within a three-mile area of the Lemberger sites. As described in the Initial Response section below, most of the residential wells found to be affected by the LL and/or LTR contamination were screened near the top of the dolomite rock and were replaced with wells screened starting at about 250 feet below ground surface (bgs).

The River is used for recreational purposes. The River's designations include the following:

- an Exceptional Resource Water, as defined by Wisconsin NR 102.11;
- a Great Lake aquatic community noted for its annual steelhead trout spawning runs; and
- a managed smallmouth bass stream.

History of Contamination

The LL was used as a township open dump from 1940 to 1969. Part of the LL was excavated as a gravel quarry prior to 1951. Prior to being used for waste disposal, part of LTR was used as a gravel pit. In 1969, WDNR licensed LL as a sanitary landfill and LTR for industrial waste disposal. Waste disposal in LL was supposed to be limited to municipal waste and power plant fly and bottom ash. Industrial waste should have been diverted to LTR. The Lemberger sites were closed in 1976.

The LL did not have a leachate collection system. Operators were required to place soil over the wastes daily. WDNR requirements provided that, after closure, the LL should have been covered with two feet of compacted soil, adequately sloped, and vegetated. Inspection reports for the LL state that fly ash and bottom ash were used for daily cover instead of being buried with other wastes. It was also reported that fly ash was used to help bring the LL to final grade. Subsequent investigations found that waste is 23 feet thick at the LL. The estimated total volume is 479,000 cubic yards, but the quantity of hazardous or toxic wastes disposed in the LL is unknown. Much of the waste disposed at the LL was within the UGS, and above the clay layer, which separates the UGS from the LGS. However, during construction of the slurry wall, bedrock was encountered above the clay layer in the northeast corner of the LL; therefore, the clay layer was not continuous below the LL.

At the LTR, wastes were deposited in trenches excavated to a depth of approximately five feet. The documented total quantity of waste disposed is approximately 870,000 gallons. Most of the waste (55%) was categorized as wood tar distillates, while 35% was aluminum dust, 5.5% were oil-water mixtures and 1.8% was paint waste. In 1976, the manufacturer described the wood tar distillates as follows:

- a polymerized material formed from the reaction of aldehydes of wood smoke with phenolic compounds from pyrolyzed wood lignin;
- a black, viscous, insoluble in water, partially soluble in vegetable oil and organic solvents, and completely soluble in acetone; and
- 160 milligrams per milliliter (mg/ml) substituted phenols and 400 mg/ml of carbonyls.

During RI activities, it was found that solid wastes and drums of wastes were intermixed with fill material.

Initial Response

After discontinuation of operations, a 1- to 4-foot-thick soil cover was installed at the LL that consisted of various types of soil. At the LTR, one foot of clay soil was placed over the waste disposal areas. Although more cover was placed over waste in the early 1980s, wastes were still observed on the surface of the LTR in the early 1990s. In 1980, local residents located west of LL complained that leachate was seeping onto their properties. In response to these complaints, WDNR ordered the LTR site owners to conduct an investigation. However, a bankruptcy petition in 1983 resulted in termination of investigation activities. Subsequently, WDNR recommended that the Lemberger sites be added to the NPL.

In 1985, in response to complaints, WDNR sampled 43 residential wells in the area and VOCs were detected in seven residential wells. From 1985 to 1987, these seven residential wells were abandoned and replaced through Wisconsin's Well Compensation Program. The replacement wells were cased to about 250 feet bgs.

Basis for Taking Action

In 1988, EPA began the RI/FS at the sites, which included sampling and analysis of the following: surface soils at the Lemberger sites; soil borings, sediments, and surface water from areas that receive drainage directly from the LL; leachate seeps from the LL; the UGS near the LL; the LGS down-gradient from the Lemberger sites; and residential wells. Samples were analyzed for VOCs, semi-volatile organic compounds (SVOCs), pesticides, PCBs, metals, and cyanide. The following contaminants were detected in the LTR surface soils: VOCs ranging from 230 to 2000 micrograms per kilogram ($\mu\text{g}/\text{kg}$), SVOCs ranging from 94 to 2000 $\mu\text{g}/\text{kg}$, aldrin at 240 $\mu\text{g}/\text{kg}$, and dieldrin at 200 $\mu\text{g}/\text{kg}$. High concentrations of VOCs were detected in groundwater within the UGS below the LL, including: acetone (14,000 micrograms per liter [$\mu\text{g}/\text{l}$]), 2-butanone (21,000 $\mu\text{g}/\text{l}$), 1,1-dichloroethane (DCA, 320 $\mu\text{g}/\text{l}$), 1,1-dichloroethylene (1,1-DCE, 110 $\mu\text{g}/\text{l}$), total 1,2-dichloroethylene (1,2-DCE, 4,000 $\mu\text{g}/\text{l}$), 4-methyl-2-pentanone (2,400 $\mu\text{g}/\text{l}$), methylene chloride (5,000 $\mu\text{g}/\text{l}$), PCE (200 $\mu\text{g}/\text{l}$), toluene (400 $\mu\text{g}/\text{l}$), and xylene (480 $\mu\text{g}/\text{l}$). The following inorganic compounds were detected exceeding MCLs, Wisconsin ESs, PALs, and or risk-based cleanup levels: arsenic (10.9 $\mu\text{g}/\text{l}$), barium (1,910 $\mu\text{g}/\text{l}$), cadmium (14.9 $\mu\text{g}/\text{l}$), and manganese (3,280 $\mu\text{g}/\text{l}$).

According to the RI, this contamination was likely to migrate off-site to the west in the UGS and recharge adjacent wetlands. The confining unit appeared to be continuous below the LL; so it was believed that contamination was very unlikely to migrate through the confining unit into the LGS. However, the RI noted it is possible that low-level detection of 2-butanone in MW-11 indicated that some migration through the confining layer was occurring. High concentrations of VOCs were detected in the LGS, particularly near the LTR. Using data from the RI, EPA determined there were unacceptable human health risks from exposure to contaminated soil and groundwater at the Lemberger sites.

Because data gaps were identified regarding contaminant sources at the LTR, EPA decided to proceed with a ROD addressing the LL source area and the groundwater contamination. Further investigation was performed at the LTR source area. Sampling for the OU2 RI was performed in 1992, and primarily included 12 samples from 13 test pits and 33 samples from 18 soil borings. The test pits were located based on magnetic anomalies. The samples were analyzed for VOCs, SVOCs, pesticides, PCBs, and metals. It was observed that fill soils were intermixed with solid wastes and drums. At some locations, a

black tar-like material with a burnt-wood charcoal odor was observed. The RI delineated hot spots, which were areas containing buried drums, concentrated wastes, and high contamination.

C. REMEDIAL ACTIONS

Remedy Selection

Selected Remedy

Due to the complex conditions at the Lemberger sites, the work was divided into two planned activities, or OUs. OU1 addressed the groundwater contamination resulting from both sites as well as source contamination at the LL site. OU2 addressed source contamination at the LTR site. The ROD for OU1, signed in 1991, included the following:

- installation of extraction wells and a groundwater treatment system to restore groundwater in the upper and lower aquifers;
- construction of a Subtitle D landfill cap per State of Wisconsin landfill closure regulations for the LL site;
- construction of a slurry wall around the perimeter of the LL;
- installation of leachate withdrawal wells in the interior of the LL and a leachate storage system with transport of leachate to a publicly owned treatment plant;
- construction of an outfall pipe from the on-site groundwater treatment plant with final discharge to the River;
- construction of a six-foot security fence around the LL and the groundwater treatment facility;
- a contingency plan to provide an alternative water supply to any residential well owners whose water supply is disrupted by the pumping;
- deed restrictions;
- monitoring; and
- wetlands investigation measures designed to prevent damage to wetlands, and mitigation, if necessary.

A source control action for the LTR site was not included in the 1991 ROD because further characterization was required. It was later determined that the LTR site contained buried drums as well as landfill hotspots. After performing further investigation, EPA and WDNR determined that conditions at the LTR site warranted emergency removal actions to abate conditions that may have presented an imminent and substantial endangerment to the public. In July 1993, EPA signed an AOC with the PRPs to perform removal activities at LTR. The AOC required the PRPs to conduct the following removal activities:

- construct a site fence around the perimeter of the LTR;
- perform a land survey to better define the LTR boundaries;
- conduct a geophysical survey to delineate areas that could contain buried drums;
- excavate and dispose of drums;
- use soil vapor extraction to treat contaminated soils adjacent to the drums and identified landfill hotspots; and
- submit a work plan to install a vapor extraction system for further source removal and, at a minimum, a Subtitle D landfill cap per State of Wisconsin landfill closure regulations.

In September 1994, EPA issued a ROD for the LTR source control (OU2) which recommended no further action because it was determined that, once all removal activities required by the AOC were complete, there would be no further risk at the LTR.

Remedy Implementation

In October 1992, the LSRG entered into a CD with EPA and WDNR to implement EPA's selected remedy for OU1. In June 1993, the LSRG agreed to implement source control measures at the LTR under an AOC, which became effective in July 1993. Beginning in November 1993, a total of 1,380 drums, 180 lab jars, and 226 gas cylinders were excavated and disposed of off-site. OU1 remedy design was completed in March 1995. The pump-and-treat system design included six pumping wells in the LGS, four screened in bedrock, and two in the LGU. These six wells were intended to capture all of the contaminated groundwater in the LGS from the Lemberger sites. An air-stripping system was constructed to treat the extracted groundwater. EPA issued a preliminary closeout report for the LL in September 1996, stating that all construction activities were complete and consistent with the ROD and remedial design plans and specifications. Construction included the following:

- placement of a solid waste cap over the LL;
- installation of a slurry wall surrounding the waste;
- installation of eight leachate wells through the LL site cover to remove groundwater contained within the slurry wall and cap; and
- construction of various sumps to remove groundwater from the LL.

EPA issued a PCOR for the LTR site in October 1996 stating that all construction activities were complete and consistent with the ROD, the AOC, and remedial design plans and specifications. Construction activities included the following:

- placement of a six-foot chain-link fence around the area of potential contamination; and
- construction of a site cover exceeding the requirements of WAC NR 504.07.

Table 2 (see next page) shows a list of COCs identified as part of the ROD.

System Operation/Operation and Maintenance

An EMP was approved by EPA and WDNR in 2014 in order to evaluate the effectiveness of natural attenuation processes in reducing the contaminated groundwater plume and confirm that groundwater is meeting compliance standards at the Lemberger sites. The objectives of the monitoring program include the following:

- monitoring effectiveness of natural attenuation;
- monitoring site-wide groundwater flow conditions; and
- assuring compliance with the groundwater remedial standards.

Table 2: COCs

Contaminants of Concern	Cleanup Standards					Maximum Conc. Detected in Groundwater ug/L
	Risk-Based Cleanup Goals	USEPA Max. Contaminant Level (a)	USEPA Max. Contaminant Level Goal (a)	Wisconsin Enforcement Standard (b)	Wisconsin Preventive Action Limit (b)	
	ug/L	ug/L	ug/L	ug/L	ug/L	
Methylene Chloride	5	5 (c)	0 (c)	150	15	5,000
Acetone	1,000	--	--	--	--	14,000
1,1-Dichloroethene	0.06	7	7	7	0.024	200
1,1-Dichloroethane	0.4	--	--	850	85	2,200
1,2-Dichloroethene	200	70 (c)	--	100	10	4,000
2-Butanone	500	--	--	--	--	21,000
1,1,1-Trichloroethane	900	200	200	200	40	3,200
Trichloroethene	3	5	0	5	0.18	510
4-Methyl-2-pentanone	100	--	--	--	--	2,400
Tetrachloroethene	0.7	5 (c)	0 (c)	1	0.1	200
Toluene	3,000	2,000 (c)	2,000 (c)	343	68.6	400
Xylene	1,000	10,000 (c)	10,000 (c)	620	124	480
Bis(2-ethylhexyl)phthalate	2	--	--	--	--	160
Heptachlor	0.008	0.4 (c)	0 (c)	--	--	0.1
Aldrin	0.002	--	--	--	--	0.46
Dieldrin	0.002	--	--	--	--	0.006
4,4-DDT	0.1	--	--	--	--	0.18
Arochlor-1248	0.005	0.5 (c)	0 (c)	--	--	2.7
Arochlor-1254	0.005	0.5 (c)	0 (c)	--	--	2.5
Barium	0.9	1,000	--	1,000	200	1,580
Cadmium	0.01	10	5 (c)	10	1	14.9
Chromium	0.002	50	--	50	5	53.6
Lead	6	50	0 (c)	50	5	8.9
Zinc	2,000	--	--	5,000(d)	2,500(d)	500
Arsenic	0.001	50	0 (c)	50	5	10.9
Beryllium	0.01	1	0 (c)	--	--	2
Manganese	2	--	--	0.05(d)	0.025(d)	3,280
Mercury	3	2	2 (c)	2	0.2	1.9
Selenium	30	10	50 (c)	10	1	3.5
Silver	30	50	--	50	10	69.7
Chloroform	1.1	100	--	6	0.6	24
Carbon Tetrachloride	0.3	5	0	5	0.5	82
Vinyl Chloride	0.017	2	0	0.2	0.0015	28

(a) Code of Federal Regulations, Chapter 40, Part 241.

(b) Chapter NR 140, Wisconsin Administrative Code

(c) Proposed Standard.

(d) These standards are based only on public welfare, not public health.

-- indicates that no standard is provided.

[shaded box] indicates cleanup standard for use for Lemberger sites remedial action

Appendix B - Attachments

Attachment 1 – Letter Regarding Branch River

CORRESPONDENCE/MEMORANDUM

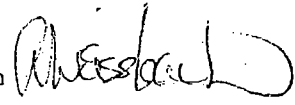
State of Wisconsin

DATE: September 10, 2010

FILE REF: Lemberger Superfund Sites
Town of Franklin, Manitowoc County

TO: Richard Boice EPA-Region V

FROM: Jim Schmidt – WDNR Watershed Bureau
Annette Weissbach – WDNR Remediation & Redevelopment Program



SUBJECT: Lemberger Landfill and review of groundwater data with respect to potential discharges to the Branch River

In response to EPA's September 3, 2010 request to review Lemberger landfill CVOC groundwater data, Jim Schmidt, Water Resources Engineer with the WDNR Watershed Bureau has completed the following evaluation:

The groundwater data was compared to what we call secondary values (other states may refer to Tier 2 values but the approach is the same). These values cover those substances that don't have enough data to actually allow us to calculate water quality criteria for our NR 105, but some information on toxicity is available.

Background

In Wis Adm. Code NR 105, we have criteria to protect aquatic life from long- and short-term toxic exposures (chronic and acute toxicity, respectively) as well as criteria to protect wildlife and human health. In each case, there are database requirements that must be fulfilled before we can include a criterion in the code. I mention this because you appear to be interested in protecting against adverse impacts to benthic microorganisms. This would fall under the realm of acute and chronic toxicity to aquatic life in terms of the NR 105 criteria. For us to include numbers in the code, we have to have toxicity data from 8 different families of organisms, one of which happens to be benthic crustaceans. The others include coldwater and warmwater fish, planktonic crustaceans, insects, amphibians, and other combinations designed to illustrate diverse ecological systems. The point of this is that if we had criteria they would automatically be protective of benthic organisms since they're part of the minimum database requirements.

The point of that explanation is that for these four primary compounds:

TCA (1,1,1-trichloroethane)
DCA (1,1-dichloroethane)
Cis 1,2-DCE (cis-1,2-dichloroethylene)
TCE (trichloroethylene)

We don't have acute or chronic criteria for any of those in NR 105. We may have human health criteria for them, but that won't answer your question about benthic organisms. However, we do have some toxicity data on "some" of the eight families such that we can calculate what we call secondary (or Tier 2) values. In those cases, we take the results for the most sensitive organisms (whatever family they're in), and then divide that number by a safety factor that reflects the number of families (out of the 8 families required for criteria) for which we have data. By doing that, we come up with an estimated value that's protective of all the organisms in the 8 families. Because we're missing some of the data, though, we can't officially call these criteria. The approach we use for these secondary values has been approved by US EPA, not just for Wisconsin but also for the other Great Lakes states. I mention this because Ohio and/or Indiana have generated secondary values for all four of these compounds, and since the state approaches are the same, Wisconsin would use the same values, as authorized using the procedures in ss. NR 105.05(4) and 105.06(6). In fact, EPA set up a clearinghouse to handle this sort of information exchange, and that's where I went to find the data that answer your questions.

What I did here was to summarize the data you sent in the package on Lemberger, and compared that to the secondary values. There would be a concern if the Lemberger values exceeded our secondary values (or criteria if available), but as it turns out the Lemberger values are far below any secondary values based on either short-term (acute) or long-term (chronic) toxicity, which tells me that the groundwater numbers are of little or no concern when it comes to aquatic life impacts, and that goes for fish as well as invertebrates. Here's what I found (note I used the data from well 203D because the results were higher than well 203I and therefore they'd be like worst-case conditions):

Compound	TCA
Lemberger data (estimated from your information)	3 to 10 ug/L
Secondary acute value	690 ug/L
Secondary chronic value	76 ug/L

Compound	DCA
Lemberger data (estimated from your information)	1.5 - 5 ug/L
Secondary acute value	3700 ug/L
Secondary chronic value	410 ug/L

Compound	cis 1,2-DCE
Lemberger data (estimated from your information)	1.0 ug/L
Secondary acute value	5500 ug/L
Secondary chronic value	620 ug/L

Compound	TCE
Lemberger data (estimated from your information)	0.72 ug/L
Secondary acute value	2000 ug/L
Secondary chronic value	220 ug/L

None of these results are a surprise because these volatile organic compounds are just not very toxic to aquatic life. They're actually not much of a concern to human health either, just because they aren't very persistent in surface water (owing to their volatility). Therefore, I don't see a concern with any of the results reported in these wells, the ones closest to the Branch River, such that if those values were present in the river at levels similar to ground water, they won't be a concern in the river.

I realize I gave you a long explanation here, but besides commenting on the results I wanted to give you some idea of the basis for the numbers I've used, in terms of the rules we're dealing with here in Wisconsin.

If you've got any questions on this, or you need some follow-up, please feel free to get back to me. I hope this provides you with the information you were looking for here, and that I hope I was of some help. - Jim

James W. Schmidt
 Water Resources Engineer
 Water Evaluation Section
 Bureau of Watershed Management
 Wisconsin Department of Natural Resources
 () phone: (608) 267-7658
 () fax: (608) 267-2800
 (+) e-mail: jamesw.schmidt@wisconsin.gov

Attachment 2 – Environmental Restrictive Covenants



Document Number

DOC# 1065459

**ENVIRONMENTAL
PROTECTION EASEMENT
AND
DECLARATION OF
RESTRICTIVE COVENANTS**

STATE OF WI. - MTWC:CO
PRESTON JONES REG/DEEDS
RECEIVED FOR RECORD
05/28/2009 9:35:42 AM

This Environmental Protection Easement and Declaration of Restrictive Covenants (the "Agreement") is made this 20th day of May 2009, by and between Kenneth J. Lemberger, an unmarried man (the "Grantor"), and the Lemberger Sites Remediation Group ("LSRG") (the "Grantee"). The Grantor and Grantee intend that the provisions of this Agreement also be for the benefit of the Wisconsin Department of Natural Resources ("WDNR") and the United States. WDNR and the United States are hereinafter referred to as the "Third Party Beneficiaries."

WITNESSETH:

WHEREAS, Grantor is the owner of certain land in Manitowoc County, Wisconsin, more particularly described on Exhibit A attached hereto and made a part hereof (the "Property");

WHEREAS, the LSRG is comprised of the City of Manitowoc, Manitowoc Company, Manitowoc Public Utilities, Newell Company and Red Arrow Products Company, LLC;

WHEREAS, the WDNR is acquiring this interest pursuant to Wisconsin Statutes, Sec. 292.31;

WHEREAS, the Property includes the Lemberger Landfill ("LL") and part of the Lemberger Transport/Recycling ("LTR") Superfund sites located near the Village of Whitelaw, which have been listed on the National Priority List under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA");

WHEREAS, the Owner and the LSRG previously executed a Global Access Agreement dated May 31, 1995 and an Amended and Restated Global Access and Easement Agreement dated June 23, 2000 (the "Prior Agreements"), which Prior Agreements specified the conditions upon which the LSRG was granted unrestricted, continuous and permanent access to the Property for itself, for the United States Environmental Protection Agency ("U.S. EPA"), for the WDNR, and each of their contractors, consultants and representatives;

WHEREAS, pursuant to the Prior Agreements, the LSRG has been investigating and remediating hazardous substance contamination and restoring the LL and the LTR sites (the

Drafted by and after recording return to:

Attorney Douglas B. Clark

Foley & Lardner LLP

P. O. Box 1497

Madison, WI 53701-1497

005-027-013-000.00,

Part of 005-034-002-001.00 and

Part of 005-034-001-000.00

Parcel Identification Number(s)

25clh



"Remediation") under the direction of the U.S. EPA and the WDNR, pursuant to Consent Decree No. 92-C-0583 (E.D. Wis. 1992) (the "Consent Decree") and the Administrative Order by Consent No. V-W-93-C-196 (U.S. EPA Region V, 1993) (the "AOC");

WHEREAS, the parties wish to reaffirm the Prior Agreements in their entirety and to clarify and agree to the following: (1) to grant a permanent right of access over the Property to the Grantee for purposes of implementing, facilitating and monitoring the remedial action; and (2) to impose on the Property use restrictions as covenants that will run with the land for the purpose of protecting human health and the environment; and

WHEREAS, Grantor wishes to cooperate with the Grantee in the implementation of all response actions at the Site;

NOW, THEREFORE:

1. Grant: Grantor, on behalf of itself, its successors and assigns, and in consideration of the terms of the Consent Decree and the AOC, does hereby covenant and declare that the Property shall be subject to the restrictions set forth herein. Furthermore, Grantor on behalf of itself, its successors and assigns, and in consideration of the terms of the Consent Decree and the AOC does give, grant and convey to the Grantee and its assigns, (1) the perpetual right to enforce said use restrictions, and (2) an environmental protection easement of the nature and character, and for the purposes explained in this Agreement, with respect to the Property.

2. Purpose: It is the purpose of this Agreement to convey to the Grantee rights to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to contaminants. It is also the purpose of this Agreement that the Third Party Beneficiaries shall have the right to enforce the terms of this Agreement.

3. Third Party Beneficiaries: Grantor and Grantee, on behalf of themselves and their successors, transferees, and assigns, hereby agree that the WDNR and the United States, together with their successors and assigns, are the intended third party beneficiaries of all the benefits and rights conveyed to the Grantee under this Agreement.

4. Restrictions on use: The following covenants, conditions, and restrictions apply to the use of the Property for the benefit of the Grantee and the Third Party Beneficiaries and are binding upon the Grantor including its successors, transferees, assigns or other person acquiring an interest in the Property and their authorized agents, employees, or persons acting under their direction and control.

(a) Groundwater underlying the Property shall not be extracted, consumed, exposed or utilized in any way, except for the limited purpose of treating and monitoring groundwater contamination levels in accordance with plans approved by the U.S. EPA.



(b) There shall be no disturbance of the surface or subsurface of the land in any manner, including but not limited to filling, drilling, excavation, removal of topsoil, rock or minerals, or change of the topography in any manner.

5. Modification of restrictions: Any request for modification or rescission of this Agreement shall be made to the Grantee, the WDNR and the U.S. EPA at the addresses given below. This Agreement may be modified or rescinded only with the written approval of the U.S. EPA Superfund Division Director and the Director of the WDNR. Grantor, on behalf of its successors, transferees, assigns or other person acquiring an interest in the Property, agrees to file any U.S. EPA approved and WDNR approved modification to or rescission of the Agreement with the appropriate Registrar of Deeds and a certified copy shall be returned to the U.S. EPA and the WDNR at the addresses listed below.

6. Environmental Protection Easement: Grantor hereby conveys and grants to the LSRG, to the Grantee, to the Third Party Beneficiaries and to their contractors, consultants and representatives, an irrevocable, permanent and continuing environmental protection easement for access to and use of, at all reasonable times, the Property for purposes of: (i) preparing for and conducting the Remediation, including but not limited to the construction, operation and maintenance of a groundwater treatment system, a portion of which may be located on the Property and (ii) any other purpose deemed reasonably necessary by the LSRG, U.S. EPA, and/or WDNR, pursuant to the Consent Decree, the AOC, and the Prior Agreements. Subparagraph (ii) shall not be interpreted to expand the purposes for which this easement is given, but shall be interpreted to be consistent with subparagraph (i) and the purpose for which this easement is needed.

7. No Ownership: This Agreement shall not be interpreted as conveying to the LSRG, or any other party, any ownership rights to the Property. This Agreement shall not be interpreted as changing any of the provisions of the Prior Agreements. Grantor acknowledges that it has already agreed to refrain from activity on the Property, or on any additional Grantor-owned property in the vicinity of the Property, that could negatively affect the LSRG's remediation efforts or exacerbate the soil or groundwater contamination at or in the vicinity of the LL or LTR sites.

8. Reservation of Legal Rights: Nothing in this Agreement shall limit or otherwise affect U.S. EPA's rights of entry and access or U.S. EPA's authority to take response actions under CERCLA, the NCP, or other federal law, statute, rule or administrative order.

9. No Public Access and Use: No right of access or use by the general public to any portion of the Property is conveyed by this Agreement.

10. Notice requirement: Grantor agrees to include in any instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases, easements, licenses and mortgages, a notice which is in substantially the following form:

**NOTICE: THE INTEREST CONVEYED HEREBY IS
SUBJECT TO AN ENVIRONMENTAL PROTECTION
EASEMENT AND DECLARATION OF RESTRICTIVE**



**COVENANTS IN FAVOR OF, AND ENFORCEABLE BY
THE WISCONSIN DEPARTMENT OF NATURAL
RESOURCES AND THE UNITED STATES OF AMERICA
AS THIRD PARTY BENEFICIARIES.**

Within thirty (30) days of the date any such instrument of conveyance is executed, Grantor must provide Grantee with a certified copy of said instrument and, if it has been recorded in the public land records, its recording reference.

11. Administrative jurisdiction: The federal agency having administrative jurisdiction over the interests acquired by the United States by this Agreement is the U.S. EPA. The WDNR has administrative jurisdiction over the interests acquired by this Agreement.

12. Enforcement: Grantee and Third Party Beneficiaries shall be entitled to enforce the terms of this Agreement by resort to specific performance or legal process. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including CERCLA. Enforcement of the terms of this Agreement shall be at the discretion of the Grantee, and any forbearance, delay or omission to exercise its rights under this Agreement in the event of a breach of any term of this Agreement shall not be deemed to be a waiver by the Grantee of such term or of any subsequent breach of the same or any other term, or of any of the rights of the Grantee under this Agreement.

13. Covenants: Grantor hereby covenants to and with the Grantee and the Third Party Beneficiaries, that the Grantor is the lawful fee simple owner of the Property.

14. Notices: Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor:

Kenneth Lemberger
10007 Reif Mills Road
Whitelaw, WI 54247

To Third Party Beneficiary:

Wisconsin Dept. of Natural Resources
101 South Webster Street
Madison, WI 53703

To Third Party Beneficiary:

U.S. Environmental Protection Agency
Region Five Administrator
77 West Jackson Boulevard
Chicago, IL 60604

To LSRG:

Douglas B. Clark
Foley & Lardner LLP
150 East Gilman Street
Madison, WI 53703
(608) 258-4276



15: General provisions:

(a) Controlling law: The interpretation and performance of this Agreement shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of the State of Wisconsin.

(b) Liberal construction: Any general rule of construction to the contrary notwithstanding, this Agreement shall be liberally construed in favor of the grant to effect the purpose of this Agreement and the policy and purpose of CERCLA. If any provision of this Agreement is found to be ambiguous, an interpretation consistent with the purpose of this Agreement that would render the provision valid shall be favored over any interpretation that would render it invalid.

(c) Severability: If any provision of this Agreement, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

(d) Entire Agreement: This Agreement sets forth the entire agreement of the parties with respect to rights and restrictions created hereby, and supersedes all prior discussions, negotiations, understandings, or agreements relating thereto, all of which are merged herein, except that unless expressly modified or amended herein, nothing in this Agreement is intended or shall be deemed to supersede, replace or amend the Prior Agreements, which remain in full effect and are legally binding on both parties.

(e) No Forfeiture: Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

(f) Termination of Rights and Obligations: A party's rights and obligations under this Agreement terminate upon transfer of the party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

(g) Counterparts: The parties may execute this Agreement in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

(h) Binding Effect: All of the terms and conditions in this Agreement, including the benefits and burdens, shall run with the land as to the Property and shall be binding upon, inure to the benefit of, and be enforceable by the Grantee, the Third Party Beneficiaries and their respective successors and assigns. Non-use or limited use of the easement rights granted in this Agreement shall not prevent the benefiting party from later use of the rights to the fullest extent authorized in this Agreement.

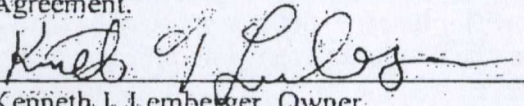
(i) Rule Against Perpetuities: In the event it shall have been determined by a court of competent jurisdiction that any of the interests conveyed or assigned or purported to be conveyed or assigned herein are void as against any rule against perpetuities or Chapter 700 of the Wisconsin Statutes, or its successor, the life or lives of such interest or interests shall be



deemed without any further action on the part of any party to be the longest life or lives possible without violation of any such rule or statute, as it is the intention of the parties hereto that the interest conveyed herein shall not be in violation of any such rule or statute.

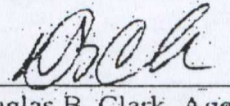
TO HAVE AND TO HOLD unto the Grantee and its assigns forever.

IN WITNESS WHEREOF, the parties hereto, which may be represented by and through their appointed counsel, enter into this Agreement. Each person signing this Agreement represents and warrants that he or she has the full power and authority to enter into this Agreement.


Kenneth J. Lemberger, Owner

5/20/2009
Date

LEMBERGER SITES REMEDIATION GROUP

By: 
Douglas B. Clark, Agent

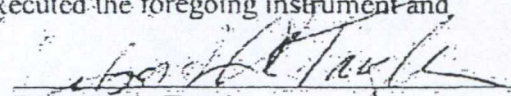
5-20-09
Date



VOL 2468 PG 303

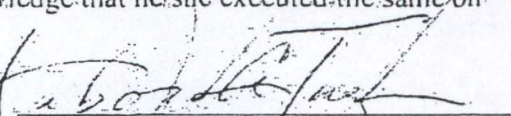
STATE OF WISCONSIN)
) ss.
COUNTY OF DANE)

Personally came before me this 20th day of May, 2009, the above-named Kenneth J. Lemberger, to me known to be the person who executed the foregoing instrument and acknowledge that he executed the same.


Deborah A. Taugher
Notary Public, Dane County, Wisconsin
My commission expires January 6, 2013

STATE OF WISCONSIN)
) ss.
COUNTY OF DANE)

Personally came before me this 20th day of May, 2009, the above named Douglas B. Clark, to me known to be the agent of Lemberger Sites Remediation Group and the person who executed the foregoing instrument and acknowledge that he/she executed the same on behalf of said entity by its authority.


Deborah A. Taugher
Notary Public, Dane County, Wisconsin
My commission expires January 6, 2013

Attachments: Exhibit A-Legal description of the Property

**EXHIBIT A****Legal Description of Property**

The Property that is the subject of this Environmental Protection Easement and Declaration of Restrictive Covenants is limited to the property that lies within the fences that surround the two Parcels described below:

Parcel 1:

The Northeast Quarter (NE 1/4) of the Southeast Quarter (SE 1/4) of Section Numbered Twenty-seven (27) Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin, Manitowoc County, Wisconsin.

Parcel No.: 005-027-013-000.00

Parcel 2:

The East One-half (E 1/2) of the East One-half (E 1/2) of the Northwest Quarter (NW 1/4) of the Northeast Quarter (NE 1/4) of Section Numbered Thirty-four (34), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin, Manitowoc County, Wisconsin.

Parcel No.: Part of 005-034-002-001.00

Parcel 3:

The West One-half (1/2) of the Northeast Quarter (NE 1/4) of the Northeast Quarter (NE 1/4); and the West One-half (W 1/2) of the East One-half (E 1/2) of the Northeast Quarter (NE 1/4) of the Northeast Quarter (NE 1/4), of Section Numbered Thirty-four (34), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin, Manitowoc County, Wisconsin.

Parcel No.: Part of 005-034-001-000.00



Document Number

DOC = 1065460

**ENVIRONMENTAL
PROTECTION EASEMENT
AND
DECLARATION OF
RESTRICTIVE
COVENANTS**

STATE OF WI. - MTWC CO.
PRESTON JONES REG/DEEDS
RECEIVED FOR RECORD
05/28/2009 9:35:42 AM

This Environmental Protection Easement and Declaration of Restrictive Covenants (the "Agreement") is made this 20th day of May 2009, by and between Terrance C. Lemberger (the "Grantor") and the Lemberger Sites Remediation Group ("LSRG") (the "Grantee"). The Grantor and Grantee intend that the provisions of this Agreement also be for the benefit of the Wisconsin Department of Natural Resources ("WDNR") and the United States. WDNR and the United States are hereinafter referred to as the "Third Party Beneficiaries."

WITNESSETH:

Drafted by and after recording return to:

Attorney Douglas B. Clark

Foley & Lardner LLP

P. O. Box 1497

Madison, WI 53701-1497

Part of 005-034-004-001.00 and

Part of 005-034-003-000.00

Parcel Identification Number(s)

25 dld

WHEREAS, Grantor is the owner of certain land in Manitowoc County, Wisconsin, more particularly described on Exhibit A attached hereto and made a part hereof (the "Property");

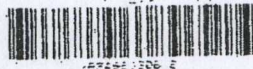
WHEREAS, the LSRG is comprised of the City of Manitowoc, Manitowoc Company, Manitowoc Public Utilities, Newell Company, and Red Arrow Products Company, LLC.

WHEREAS, the WDNR is acquiring this interest pursuant to Wisconsin Statutes Sec. 292.31.

WHEREAS, the Property is part of the Lemberger Transport Recycling ("LTR") Superfund site located near the Village of Whitelaw, which has been listed on the National Priority List under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA");

WHEREAS, the Owner and the LSRG previously executed an Access and Easement Agreement dated May 11, 2005 (the "Prior Agreement") that specified the conditions upon which the LSRG was granted unrestricted, continuous and permanent access to the Property for itself, for the United States Environmental Protection Agency ("U.S. EPA"), for the WDNR, and each of their contractors, consultants and representatives;

WHEREAS, pursuant to the Prior Agreement, the LSRG has been investigating and remediating hazardous substance contamination and restoring the LTR site (the "Remediation") under the direction of the U.S. EPA and the WDNR, pursuant to Consent Decree No. 92-C-0583



(E.D. Wis. 1992) (the "Consent Decree") and the Administrative Order by Consent No. V-W-93-C-196 (U.S. EPA Region V, 1993) (the "AOC");

WHEREAS, the parties wish to reaffirm the Prior Agreement in its entirety and to clarify and agree to the following: (1) to grant a permanent right of access over the Property to the Grantee for purposes of implementing, facilitating and monitoring the remedial action; and (2) to impose on the Property use restrictions as covenants that will run with the land for the purpose of protecting human health and the environment; and

WHEREAS, Grantor wishes to cooperate with the Grantee in the implementation of all response actions at the Site.

NOW, THEREFORE:

1. Grant: Grantor, on behalf of itself, its successors and assigns, and in consideration of the terms of the Consent Decree and the AOC, does hereby covenant and declare that the Property shall be subject to the restrictions set forth herein. Furthermore, Grantor, on behalf of itself, its successors and assigns, and in consideration of the terms of the Consent Decree and the AOC, does give, grant and convey to the Grantee, and its assigns, (1) the perpetual right to enforce said use restrictions, and (2) an environmental protection easement of the nature and character, and for the purposes explained in this Agreement, with respect to the Property.

2. Purpose: It is the purpose of this Agreement to convey to the Grantee rights to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to contaminants. It is also the purpose of this Agreement that the Third Party Beneficiaries shall have the right to enforce the terms of this Agreement.

3. Third Party Beneficiaries: Grantor and Grantee, on behalf of themselves and their successors, transferees and assigns, hereby agree that the WDNR and the United States, together with their successors and assigns, are the intended third party beneficiaries of all the benefits and rights conveyed to the Grantee under this Agreement.

4. Restrictions on use: The following covenants, conditions, and restrictions apply to the use of the Property for the benefit of the Grantee and the Third Party Beneficiaries and are binding upon the Grantor including its successors, transferees, assigns or other person acquiring an interest in the Property and their authorized agents, employees, or persons acting under their direction and control.

(a) Groundwater underlying the Property shall not be extracted, consumed, exposed or utilized in any way, except for the limited purpose of treating and monitoring groundwater contamination levels in accordance with plans approved by the U.S. EPA.

(b) There shall be no disturbance of the surface or subsurface of the land in any manner, including but not limited to filling, drilling, excavation, removal of topsoil, rock or minerals, or change of the topography in any manner.



5. Modification of restrictions: Any request for modification or rescission of this Agreement shall be made to the Grantee, the WDNR and the U.S. EPA at the addresses given below. This Agreement may be modified or rescinded only with the written approval of the U.S. EPA Superfund Division Director and the Director of the WDNR. Grantor, on behalf of its successors, transferees, assigns or other person acquiring an interest in the Property, agrees to file any U.S. EPA approved and WDNR approved modification to or rescission of the Agreement with the appropriate Registrar of Deeds and a certified copy shall be returned to the U.S. EPA and the WDNR at the addresses listed below.

6. Environmental Protection Easement: Grantor hereby conveys and grants to the LSRG, to the Grantee, to the Third Party Beneficiaries and to their contractors, consultants and representatives, an irrevocable, permanent and continuing environmental protection easement for access to and use of, at all reasonable times, the Property for purposes of: (i) preparing for and conducting the Remediation, including but not limited to the construction, operation and maintenance of a groundwater treatment system, a portion of which may be located on the Property and (ii) any other purpose deemed reasonably necessary by the LSRG, U.S. EPA, and/or WDNR, pursuant to the Consent Decree, the AOC, and the Prior Agreements. Subparagraph (ii) shall not be interpreted to expand the purposes for which this easement is given, but shall be interpreted to be consistent with subparagraph (i) and the purpose for which this easement is needed.

7. No Ownership: This Agreement shall not be interpreted as conveying to the LSRG, or any other party, any ownership rights to the Property. This Agreement shall not be interpreted as changing any of the provisions of the Prior Agreements. Grantor acknowledges that it has already agreed to refrain from activity on the Property that could negatively affect the LSRG's remediation efforts or exacerbate the soil or groundwater contamination at or in the vicinity of the LL or LTR sites.

8. Reservation of Legal Rights: Nothing in this Agreement shall limit or otherwise affect U.S. EPA's rights of entry and access or U.S. EPA's authority to take response actions under CERCLA, the NCP, or other federal law, statute, rule or administrative order.

9. No Public Access and Use: No right of access or use by the general public to any portion of the Property is conveyed by this Agreement.

10. Notice requirement: Grantor agrees to include in any instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases, easements, licenses and mortgages, a notice which is in substantially the following form:

**NOTICE: THE INTEREST CONVEYED HEREBY IS
SUBJECT TO AN ENVIRONMENTAL PROTECTION
EASEMENT AND DECLARATION OF RESTRICTIVE
COVENANTS IN FAVOR OF, AND ENFORCEABLE BY
THE WISCONSIN DEPARTMENT OF NATURAL
RESOURCES AND THE UNITED STATES OF AMERICA
AS THIRD PARTY BENEFICIARIES.**



Within thirty (30) days of the date any such instrument of conveyance is executed, Grantor must provide Grantee with a certified copy of said instrument and, if it has been recorded in the public land records, its recording reference.

11. Administrative jurisdiction: The federal agency having administrative jurisdiction over the interests acquired by the United States by this Agreement is the U.S. EPA. The WDNR has administrative jurisdiction over the interests acquired by this Agreement.

12. Enforcement: Grantee and Third Party Beneficiaries shall be entitled to enforce the terms of this Agreement by resort to specific performance or legal process. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including CERCLA. Enforcement of the terms of this Agreement shall be at the discretion of the Grantee, and any forbearance, delay or omission to exercise its rights under this Agreement in the event of a breach of any term of this Agreement shall not be deemed to be a waiver by the Grantee of such term or of any subsequent breach of the same or any other term, or of any of the rights of the Grantee under this Agreement.

13. Covenants: Grantor hereby covenants to and with the Grantee and the Third Party Beneficiaries, that the Grantor is the lawful fee simple owner of the Property.

14. Notices: Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor:

Terrance C. Lemberger
14006 County Trunk Highway K
Reedsville, WI 54230

To Third Party Beneficiary:

Wisconsin Dept. of Natural Resources
101 South Webster Street
Madison, WI 53703

To Third Party Beneficiary:

U.S. Environmental Protection Agency
Region Five Administrator
77 West Jackson Boulevard
Chicago, IL 60604

To LSRG:

Douglas B. Clark
Foley & Lardner LLP
150 East Gilman Street
Madison, WI 53703
(608) 258-4276

15. General provisions:

(a) Controlling law: The interpretation and performance of this Agreement shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of the State of Wisconsin.

(b) Liberal construction: Any general rule of construction to the contrary notwithstanding, this Agreement shall be liberally construed in favor of the grant to effect the purpose of this Agreement and the policy and purpose of CERCLA. If any provision of this



Agreement is found to be ambiguous, an interpretation consistent with the purpose of this Agreement that would render the provision valid shall be favored over any interpretation that would render it invalid.

(c) Severability: If any provision of this Agreement, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

(d) Entire Agreement: This Agreement sets forth the entire agreement of the parties with respect to rights and restrictions created hereby, and supersedes all prior discussions, negotiations, understandings, or agreements relating thereto, all of which are merged herein, except that unless expressly modified or amended herein, nothing in this Agreement is intended or shall be deemed to supersede, replace or amend the Prior Agreement, which remains in full effect and is are legally binding on both parties.

(e) No Forfeiture: Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

(f) Termination of Rights and Obligations: A party's rights and obligations under this Agreement terminate upon transfer of the party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

(g) Counterparts: The parties may execute this Agreement in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

(h) Binding Effect: All of the terms and conditions in this Agreement, including the benefits and burdens, shall run with the land as to the Property and shall be binding upon, inure to the benefit of, and be enforceable by the Grantee, the Third Party Beneficiaries and their respective successors and assigns. Non-use or limited use of the easement rights granted in this Agreement shall not prevent the benefiting party from later use of the rights to the fullest extent authorized in this Agreement.

(i) Rule Against Perpetuities: In the event it shall have been determined by a court of competent jurisdiction that any of the interests conveyed or assigned or purported to be conveyed or assigned herein are void as against any rule against perpetuities or Chapter 700 of the Wisconsin Statutes, or its successor, the life or lives of such interest or interests shall be deemed without any further action on the part of any party to be the longest life or lives possible without violation of any such rule or statute, as it is the intention of the parties hereto that the interest conveyed herein shall not be in violation of any such rule or statute.

TO HAVE AND TO HOLD unto the Grantee and its assigns forever.



IN WITNESS WHEREOF, the parties hereto, which may be represented by and through their appointed counsel, enter into this Agreement. Each person signing this Agreement represents and warrants that he or she has the full power and authority to enter into this Agreement.

Terrance C. Lemberger
Terrance C. Lemberger, Owner

5/20/09
Date

LEMBERGER SITES REMEDIATION GROUP

By: Douglas B. Clark
Douglas B. Clark, Agent

5/20/09
Date

STATE OF WISCONSIN)

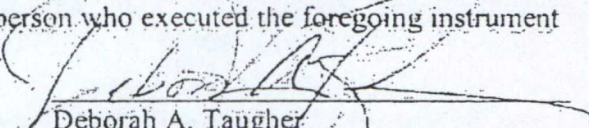
) ss:

DANE COUNTY)



VOL. 2468 PG. 311

Personally came before me this 20th day of May, 2009, the above-named Terrance C. Lemberger, to me known to be the person who executed the foregoing instrument and acknowledge that he executed the same.

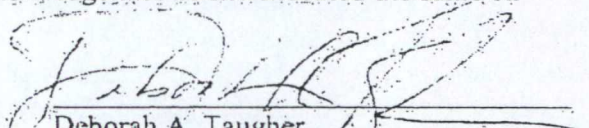

Deborah A. Taugher
Notary Public, Dane County, Wisconsin
My commission expires January 6, 2013

STATE OF WISCONSIN)

) ss:

COUNTY OF DANE)

Personally came before me this 20th day of May, 2009, the above named Douglas B. Clark, to me known to be the agent of Lemberger Sites Remediation Group, and the person who executed the foregoing instrument and acknowledge that he/she executed the same on behalf of said entity by its authority.


Deborah A. Taugher
Notary Public, Dane County, Wisconsin
My commission expires January 6, 2013

Attachments: Exhibit A-Legal description of the Property



EXHIBIT A
Legal Description of Property

The Property that is the subject of this Environmental Protection Easement and Declaration of Restrictive Covenants is limited to the property that lies within the fence at the LTR site as described below:

A parcel of approximately five (5) acres that includes:

(1) All except the East (E) Two Hundred and Fifty (250) feet of the North One-half (N $\frac{1}{2}$) of the North One-half (N $\frac{1}{2}$) of the North One-half (N $\frac{1}{2}$) of the Southeast One-quarter (SE $\frac{1}{4}$) of the Northeast One-quarter (NE $\frac{1}{4}$) of Section Numbered Thirty-four (34), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin Manitowoc County, Wisconsin.

Tax Parcel No: Part of 005-034-004-001.00

and

(2) The North One-half (N $\frac{1}{2}$) of the North One-half (N $\frac{1}{2}$) of the North One-half (N $\frac{1}{2}$) of the East (E) Two Hundred and Fifty (250) feet of the Southwest One-quarter (SW $\frac{1}{4}$) of the Northeast One-quarter (NE $\frac{1}{4}$) of Section Numbered Thirty-four (34), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin Manitowoc County, Wisconsin.

Tax Parcel No: Part of 005-034-003-000.00



370761

VOL 2560 PG 189

Document Number

DOC# 1083356

**ENVIRONMENTAL
PROTECTION EASEMENT
AND
DECLARATION OF
RESTRICTIVE COVENANTS**

STATE OF WI - MTWC CO
PRESTON JONES REG/DEEDS
RECEIVED FOR RECORD
05/15/2010 9:25:54 AM

This Environmental Protection Easement and Declaration of Restrictive Covenants (the "Agreement") is made this 20th day of May 2009, by and between Kenneth J. Lemberger, an unmarried man (the "Grantor"), and the Lemberger Sites Remediation Group ("LSRG") ("the Grantee"). The Grantor and Grantee intend that the provisions of this Agreement also be for the benefit of the Wisconsin Department of Natural Resources ("WDNR") and the United States. WDNR and the United States are hereinafter referred to as the "Third Party Beneficiaries."

WITNESSETH:

WHEREAS, Grantor is the owner of certain land in Manitowoc County, Wisconsin, more particularly described on Exhibit A attached hereto and made a part hereof (the "Property");

WHEREAS, the LSRG is comprised of the City of Manitowoc, Manitowoc Company, Manitowoc Public Utilities, Newell Company and Red Arrow Products Company, LLC;

WHEREAS, the WDNR is acquiring this interest pursuant to Wisconsin Statutes Sec. 292.31;

WHEREAS, the Property includes the Lemberger Landfill ("LL") and part of the Lemberger Transport Recycling ("LTR") Superfund sites located near the Village of Whitelaw, which have been listed on the National Priority List under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA");

WHEREAS, the Owner and the LSRG previously executed a Global Access Agreement dated May 31, 1995 and an Amended and Restated Global Access and Easement Agreement dated June 23, 2000 (the "Prior Agreements"), which Prior Agreements specified the conditions upon which the LSRG was granted unrestricted, continuous and permanent access to the Property for itself, for the United States Environmental Protection Agency ("U.S. EPA"), for the WDNR, and each of their contractors, consultants and representatives;

WHEREAS, pursuant to the Prior Agreements, the LSRG has been investigating and remediating hazardous substance contamination and restoring the LL and the LTR sites (the

25 CLK (Env)
Drafted by and after recording return to:

Attorney Douglas B. Clark
Foley & Lardner LLP
P. O. Box 1497
Madison, WI 53701-1497

005-027-013-000.00,
Part of 005-034-002-001.00 and
Part of 005-034-001-000.00
Parcel Identification Number(s)



"Remediation") under the direction of the U.S. EPA and the WDNR, pursuant to Consent Decree No. 92-C-0583 (E.D. Wis. 1992) (the "Consent Decree") and the Administrative Order by Consent No. V-W-93-C-196 (U.S. EPA Region V, 1993) (the "AOC");

WHEREAS, the parties wish to reaffirm the Prior Agreements in their entirety and to clarify and agree to the following: (1) to grant a permanent right of access over the Property to the Grantee for purposes of implementing, facilitating and monitoring the remedial action; and (2) to impose on the Property use restrictions as covenants that will run with the land for the purpose of protecting human health and the environment; and

WHEREAS, Grantor wishes to cooperate with the Grantee in the implementation of all response actions at the Site.

NOW, THEREFORE:

1. Grant: Grantor, on behalf of itself, its successors and assigns, and in consideration of the terms of the Consent Decree and the AOC, does hereby covenant and declare that the Property shall be subject to the restrictions set forth herein. Furthermore, Grantor on behalf of itself, its successors and assigns, and in consideration of the terms of the Consent Decree and the AOC does give, grant and convey to the Grantee and its assigns, (1) the perpetual right to enforce said use restrictions, and (2) an environmental protection easement of the nature and character, and for the purposes explained in this Agreement, with respect to the Property.

2. Purpose: It is the purpose of this Agreement to convey to the Grantee rights to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to contaminants. It is also the purpose of this Agreement that the Third Party Beneficiaries shall have the right to enforce the terms of this Agreement.

3. Third Party Beneficiaries: Grantor and Grantee, on behalf of themselves and their successors, transferees, and assigns, hereby agree that the WDNR and the United States, together with their successors and assigns, are the intended third party beneficiaries of all the benefits and rights conveyed to the Grantee under this Agreement.

4. Restrictions on use: The following covenants, conditions, and restrictions apply to the use of the Property for the benefit of the Grantee and the Third Party Beneficiaries and are binding upon the Grantor including its successors, transferees, assigns or other person acquiring an interest in the Property and their authorized agents, employees, or persons acting under their direction and control.

(a) Groundwater underlying the Property shall not be extracted, consumed, exposed or utilized in any way, except for the limited purpose of treating and monitoring groundwater contamination levels in accordance with plans approved by the U.S. EPA.



(b) There shall be no disturbance of the surface or subsurface of the land in any manner, including but not limited to filling, drilling, excavation, removal of topsoil, rock or minerals, or change of the topography in any manner.

5. Modification of restrictions: Any request for modification or rescission of this Agreement shall be made to the Grantee, the WDNR and the U.S. EPA at the addresses given below. This Agreement may be modified or rescinded only with the written approval of the U.S. EPA Superfund Division Director and the Director of the WDNR. Grantor, on behalf of its successors, transferees, assigns or other person acquiring an interest in the Property, agrees to file any U.S. EPA approved and WDNR approved modification to or rescission of the Agreement with the appropriate Registrar of Deeds and a certified copy shall be returned to the U.S. EPA and the WDNR at the addresses listed below.

6. Environmental Protection Easement: Grantor hereby conveys and grants to the LSRG, to the Grantee, to the Third Party Beneficiaries and to their contractors, consultants and representatives, an irrevocable, permanent and continuing environmental protection easement for access to and use of, at all reasonable times, the Property for purposes of: (i) preparing for and conducting the Remediation, including but not limited to the construction, operation and maintenance of a groundwater treatment system, a portion of which may be located on the Property and (ii) any other purpose deemed reasonably necessary by the LSRG, U.S. EPA, and/or WDNR, pursuant to the Consent Decree, the AOC, and the Prior Agreements. Subparagraph (ii) shall not be interpreted to expand the purposes for which this easement is given, but shall be interpreted to be consistent with subparagraph (i) and the purpose for which this easement is needed.

7. No Ownership. This Agreement shall not be interpreted as conveying to the LSRG, or any other party, any ownership rights to the Property. This Agreement shall not be interpreted as changing any of the provisions of the Prior Agreements. Grantor acknowledges that it has already agreed to refrain from activity on the Property, or on any additional Grantor-owned property in the vicinity of the Property, that could negatively affect the LSRG's remediation efforts or exacerbate the soil or groundwater contamination at or in the vicinity of the LL or LTR sites.

8. Reservation of Legal Rights. Nothing in this Agreement shall limit or otherwise affect U.S. EPA's rights of entry and access or U.S. EPA's authority to take response actions under CERCLA, the NCP, or other federal law, statute, rule or administrative order.

9. No Public Access and Use: No right of access or use by the general public to any portion of the Property is conveyed by this Agreement.

10. Notice requirement: Grantor agrees to include in any instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases, easements, licenses and mortgages, a notice which is in substantially the following form:

**NOTICE: THE INTEREST CONVEYED HEREBY IS
SUBJECT TO AN ENVIRONMENTAL PROTECTION
EASEMENT AND DECLARATION OF RESTRICTIVE**



**COVENANTS IN FAVOR OF, AND ENFORCEABLE BY
THE WISCONSIN DEPARTMENT OF NATURAL
RESOURCES AND THE UNITED STATES OF AMERICA
AS THIRD PARTY BENEFICIARIES.**

Within thirty (30) days of the date any such instrument of conveyance is executed, Grantor must provide Grantee with a certified copy of said instrument and, if it has been recorded in the public land records, its recording reference.

11. Administrative jurisdiction: The federal agency having administrative jurisdiction over the interests acquired by the United States by this Agreement is the U.S. EPA. The WDNR has administrative jurisdiction over the interests acquired by this Agreement.

12. Enforcement: Grantee and Third Party Beneficiaries shall be entitled to enforce the terms of this Agreement by resort to specific performance or legal process. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including CERCLA. Enforcement of the terms of this Agreement shall be at the discretion of the Grantee, and any forbearance, delay or omission to exercise its rights under this Agreement in the event of a breach of any term of this Agreement shall not be deemed to be a waiver by the Grantee of such term or of any subsequent breach of the same or any other term, or of any of the rights of the Grantee under this Agreement.

13. Covenants: Grantor hereby covenants to and with the Grantee and the Third Party Beneficiaries, that the Grantor is the lawful fee simple owner of the Property.

14. Notices: Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor:

Kenneth Lemberger
10007 Reif Mills Road
Whitelaw, WI 54247

To Third Party Beneficiary:

Wisconsin Dept. of Natural Resources
101 South Webster Street
Madison, WI 53703

To Third Party Beneficiary:

U.S. Environmental Protection Agency
Region Five Administrator
77 West Jackson Boulevard
Chicago, IL 60604

To LSRG:

Douglas B. Clark
Foley & Lardner LLP
150 East Gilman Street
Madison, WI 53703
(608) 258-4276

15. General provisions:

(a) **Controlling law:** The interpretation and performance of this Agreement shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of the State of Wisconsin.

(b) **Liberal construction:** Any general rule of construction to the contrary notwithstanding, this Agreement shall be liberally construed in favor of the grant to effect the purpose of this Agreement and the policy and purpose of CERCLA. If any provision of this Agreement is found to be ambiguous, an interpretation consistent with the purpose of this Agreement that would render the provision valid shall be favored over any interpretation that would render it invalid.

(c) **Severability:** If any provision of this Agreement, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

(d) **Entire Agreement:** This Agreement sets forth the entire agreement of the parties with respect to rights and restrictions created hereby, and supersedes all prior discussions, negotiations, understandings, or agreements relating thereto, all of which are merged herein, except that unless expressly modified or amended herein, nothing in this Agreement is intended or shall be deemed to supersede, replace or amend the Prior Agreements, which remain in full effect and are legally binding on both parties.

(e) **No Forfeiture:** Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

(f) **Termination of Rights and Obligations:** A party's rights and obligations under this Agreement terminate upon transfer of the party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

(g) **Counterparts:** The parties may execute this Agreement in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

(h) **Binding Effect:** All of the terms and conditions in this Agreement, including the benefits and burdens, shall run with the land as to the Property and shall be binding upon, inure to the benefit of, and be enforceable by the Grantee, the Third Party Beneficiaries and their respective successors and assigns. Non-use or limited use of the easement rights granted in this Agreement shall not prevent the benefiting party from later use of the rights to the fullest extent authorized in this Agreement.

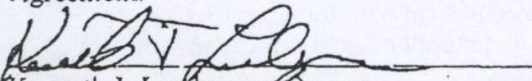
(i) **Rule Against Perpetuities:** In the event it shall have been determined by a court of competent jurisdiction that any of the interests conveyed or assigned or purported to be conveyed or assigned herein are void as against any rule against perpetuities or Chapter 700 of the Wisconsin Statutes, or its successor, the life or lives of such interest or interests shall be



deemed without any further action on the part of any party to be the longest life or lives possible without violation of any such rule or statute, as it is the intention of the parties hereto that the interest conveyed herein shall not be in violation of any such rule or statute.

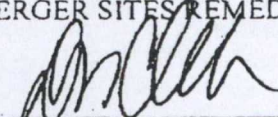
TO HAVE AND TO HOLD unto the Grantee and its assigns forever.

IN WITNESS WHEREOF, the parties hereto, which may be represented by and through their appointed counsel, enter into this Agreement. Each person signing this Agreement represents and warrants that he or she has the full power and authority to enter into this Agreement.


Kenneth J. Lemberger, Owner

6-10-10
Date

LEMBERGER SITES REMEDIATION GROUP

By: 
Douglas B. Clark, Agent

6/10/10
Date



STATE OF WISCONSIN)
) ss.
COUNTY OF ~~DANE~~
Manitowish

10th of June 2010
Personally came before me this ~~20th day of May, 2009~~, the above-named Kenneth J. Lemberger, to me known to be the person who executed the foregoing instrument and acknowledge that he executed the same.

Debra J Haback
~~Deborah A. Taugher~~ Debra J Haback
Notary Public, ~~Dane County, Wisconsin~~
My commission expires ~~January 6, 2013~~

Manitowish WI
Commission expires
9-23-12

STATE OF WISCONSIN)
) ss.
COUNTY OF ~~DANE~~
Manitowish

10th of June 2010
Personally came before me this ~~20th day of May, 2009~~, the above named Douglas B. Clark, to me known to be the agent of Lemberger Sites Remediation Group and the person who executed the foregoing instrument and acknowledge that he/she executed the same on behalf of said entity by its authority.

Debra J Haback
~~Deborah A. Taugher~~ Debra J Haback
Notary Public, ~~Dane County, Wisconsin~~
My commission expires ~~January 6, 2013~~

Manitowish County WI
Expires 9-23-12

Attachments: Exhibit A-Legal description of the Property.



EXHIBIT A
Legal Description of Property

The Property that is the subject of this Environmental Protection Easement and Declaration of Restrictive Covenants is limited to the property that lies within the fences that surround the Parcels described below:

Parcel 1:

The Northeast Quarter (NE 1/4) of the Southeast Quarter (SE 1/4) of Section Numbered Twenty-seven (27) Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin Manitowoc County, Wisconsin.

Parcel No.: 005-027-013-000.00

Parcel 2:

The East One-half (E 1/2) of the East One-half (E 1/2) of the Northwest Quarter (NW 1/4) of the Northeast Quarter (NE 1/4) of Section Numbered Thirty-four (34), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin, Manitowoc County, Wisconsin.

Parcel No.: Part of 005-034-002-001.00

Parcel 3:

All except the East (E) Two Hundred and Fifty (250) feet of the Northeast Quarter (NE 1/4) of the Northeast Quarter (NE 1/4) of Section Numbered Thirty-four (34); Township Numbered Twenty (2) North, Range Numbered Twenty-two (22) East, in the Town of Franklin, Manitowoc County, Wisconsin.

Parcel No.: Part of 005-034-001-000.00

Attachment 3 – Deed Restrictions



3. Allowed Uses. Those portions of the Property that are in agricultural use as of the date of this Agreement may continue to be used for agricultural purposes; provided however, that the Grantor shall not expand the existing agricultural use of the Property without the Beneficiary's written consent, which consent the Beneficiary may withhold in its sole and absolute discretion. Also, nothing in this Agreement shall restrict the right of the Beneficiary to use the Property in any manner authorized by previous agreements between the Grantor and Beneficiary.

4. Reserved Rights. Grantor reserves to themselves and their heirs, successors and assigns all rights accruing from the ownership of the Property including the right to engage in, or permit or invite others to engage in, all uses of the Property that are not expressly prohibited and that are not inconsistent with the purpose of this Agreement.

5. Access. No right of access by the general public to any portion of the Property is conveyed by this Agreement.

6. Rights and Obligations. To accomplish the purpose of this Agreement, the following rights are conveyed to Beneficiary by this Agreement: To enter upon the Property at reasonable times to monitor compliance with and otherwise enforce the terms of this Agreement provided that, except in cases where Beneficiary determines that immediate entry is required due to an emergency or to prevent, terminate or mitigate a violation of the Agreement, such entry shall be upon prior reasonable notice to Grantor; and to prevent any activity or use of the Property that is prohibited or inconsistent with the purpose of this Agreement. The rights conveyed to Beneficiary shall also be considered as obligations assumed by Beneficiary.

7. Control. Nothing in this Agreement shall be construed as giving rise, in the absence of a judicial decree, to any right or ability in Beneficiary to exercise physical or managerial control over the operations of the Property or activities on the Property. Beneficiary shall not in any case unreasonably interfere with Grantor's use and enjoyment of the Property.

8. Remedies. If Beneficiary determines that a violation of the terms of this Agreement has occurred or is threatened, Beneficiary shall attempt to informally resolve the violation with Grantor. If informal resolution is not successful, Beneficiary shall give written notice to Grantor of such violation and demand corrective action sufficient to cure the violation and, where the violation involves injury to the Property resulting from any use or activity prohibited or inconsistent with the purpose of this Agreement, to restore the portion of the Property to its prior condition. If Grantor fails to cure the violation within 30 days after receipt of notice from Beneficiary, or if the violation cannot be reasonably cured within 30 days but Grantor fails to begin curing such violation or fails to continue to diligently cure such violation, Beneficiary may bring an action at law or in equity to enforce the terms of this Agreement, to enjoin violation by temporary or permanent injunction, to require restoration of the Property to the condition that existed prior to the violation and recover all of its costs and expense incurred in connection with such action, including without limitation its reasonable attorneys' fees. If Beneficiary determines that circumstances require immediate action to prevent or mitigate significant damage to the conservation values of the Property, Beneficiary may pursue its remedies without prior notice to Grantor. Beneficiary's rights shall apply equally in the event of either actual or threatened violations. Nothing contained in this Agreement shall be construed to



Vol 2119 Pg 352

995679

Document Number

PROPERTY USE
RESTRICTION
AGREEMENT

105

THIS PROPERTY USE RESTRICTION AGREEMENT (this "Agreement") is made and effective as of August 3, 2005, by and between NORBERT AND CLARA GAIL BRAUN (collectively, the "Grantor") and the LEMBERGER SITES REMEDIATION GROUP (the "Beneficiary").

WITNESSETH:

WHEREAS, the Grantor is the fee simple owner of certain real Property (the "Property") located in the Town of Franklin, Manitowoc County, Wisconsin, as described on "Exhibit A" attached hereto and hereby made a part hereof;

WHEREAS, the Grantor and Beneficiary wish to restrict development of those portions of the Property that are unimproved and undeveloped as of the date of this Agreement (the "Restriction") as set forth in the following section;

WHEREAS, the parties wish to make certain other agreements regarding the Restriction as are more particularly set forth below.

STATE OF WI - MTWC CO.
PRESTON JONES REG/DEEDS
RECEIVED FOR RECORD
09/25/2005 10:47:58 AM

Recording/Att:

Drafted by, and after recording, return to:

Douglas S. Buck
Foley & Lardner LLP
P. O. Box 1497
Madison, WI 53701-1497

2114

Parcel Identification Number (PIN)

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing premises and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Grantor and Beneficiary agree to the following Restriction, as set forth below, encumbering the Property.

1. **Purpose.** It is the purpose of this Restriction that those portions of the Property that are unimproved and undeveloped as of the date of this agreement shall remain in an undeveloped and unimproved state, except for any improvements or developments that the Beneficiary authorizes by prior written consent, which consent Beneficiary may withhold in its sole and absolute discretion.

2. **Prohibited Uses, Structures and Activities.** Any improvement to or construction on the Property is hereby prohibited, including but not limited to the following: filling, grading and dredging; excavating; artificial ditching and lagooning; deposition or extraction of materials; construction or erection of any building or structure; road construction; installation of utilities; livestock grazing.

Braun

Property Use Restriction Agreement

ATTACHMENT G(2)

20. Headings. The Section headings contained herein are for convenience only and shall not be deemed to limit, construe, affect or alter the meaning of such Sections.

IN WITNESS WHEREOF, the Parties hereto, which may be represented by and through their appointed counsel, enter into this Agreement. Each person signing this Agreement represents and warrants that he or she has the full power and authority to enter into this Agreement.

Terrence C. Lemberger
Terrence C. Lemberger, Owner

5-11-01
Date

Douglas B. Clark, Foley & Lardner
Douglas B. Clark, Foley & Lardner
Attorney for the Lemberger Sites
Remediation Group

5-11-01
Date

STATE OF WISCONSIN)
) ss.
COUNTY OF Milwaukee)

Personally came before me this 11th day of May, 2001, the above-named Terrence C. Lemberger, to me known to be the person who executed the foregoing instrument and acknowledge that he executed the same.

Lilary M.
Notary Public, Dane County, Wisconsin
My commission expires June 27, 2004

STATE OF WISCONSIN)
) ss.
COUNTY OF DANE)

Personally came before me this 11th day of May, 2001, the above-named Douglas B. Clark, to me known to be the person who executed the foregoing instrument and acknowledge that he executed the same.

Don J. Huber
Notary Public, Dane County, Wisconsin
My commission expires Oct 26, 2003

11. Compliance with Applicable Laws. The LSRG shall comply with all applicable federal, state or local laws, ordinances, rules, orders, or regulations in conducting work on the Property pursuant to this Agreement.

12. Notice. Notices relating to this Agreement shall be sent to the following:

Douglas B. Clark
Foley & Lardner
P.O. Box 1497
150 E. Gilman Street
Madison, WI 53701-1497
(414)297-5826 (Milwaukee)
(608)258-4276 (Madison)

Terrence C. Lemberger
9715 Highway 42
Newton, WI 53063
(920) 726-4752

13. Amendment and Termination. This Agreement may be amended only by the written agreement of both Parties. This Agreement shall remain in effect until the LSRG provides written notice to the Owner that the activities described herein are concluded, or upon the written agreement of both Parties.

14. Binding Effect. This Agreement, including the benefits and burdens, shall run with the Property and is binding upon and shall inure to the benefit of the Parties hereto and their heirs, personal representatives, successors, and assigns.

15. No Admission of Liability. This Agreement is not an admission of liability on the part of LSRG and/or the Owner.

16. Entire Agreement. This Agreement reflects the entire agreement between the LSRG and the Owner with respect to the matters contained herein, and no statements, promises, or inducements, including without limitation, the contents of the Prior Agreement, that are not contained herein shall be valid or binding.

17. Severability. If any provision of this Agreement is deemed invalid or unenforceable, the balance of this Agreement shall remain in full force and effect.

18. Governing Law. This Agreement shall be interpreted under the laws of the State of Wisconsin.

19. Advice of Counsel. The Owner has read this Agreement, has had opportunity to consult with legal counsel, and represents that he knows and understands the content and meaning of the Agreement.

rights to the Property a written agreement that such parties shall be bound by the terms of this Agreement, without compensation by the LSRG.

3. Payment of Costs. In consideration for the access and easement granted in this Agreement, the LSRG paid the Owner the sum of Seven Thousand Five Hundred Dollars (\$7500). Other than as provided in Section 6 hereof, the LSRG shall not be responsible for or be required to reimburse the Owner for any other costs, including without limitation the value of any crops, trees or vegetation on the Property which are damaged or destroyed as a result of the access and easement granted under this Agreement.

4. Improvements. The LSRG shall be responsible for and shall pay all costs incurred in connection with the installation, operation and maintenance of all structures and equipment placed on the Property in connection with the Remediation or any other activities specified in Section 1 (Access) of this Agreement.

5. Indemnification. The LSRG shall indemnify and hold the Owner harmless from and against any and all physical injuries to persons and damage to personal property caused by the actions of the LSRG or their contractors, consultants, and representatives, on the Property arising out of or relating to the access granted under this Agreement, provided, however, that this indemnity shall not apply to any injuries, death, damages, claims, losses, demands, expenses or liabilities that: (a) are caused by the Owner or any third party who is not an agent, employee or contractor (including subcontractors) of the LSRG; or (b) result from the presence of hazardous substances on the Property, unless the damage or injury was caused by an act of omission of the LSRG or its contractors, consultants and representatives.

6. Restoration/Release. The Owner agrees that at the conclusion of the Remediation, the LSRG will have no obligation to regrade, remove, or otherwise restore the Property to any particular grade, appearance, or condition. The Owner expressly releases the LSRG from any claim for restoration or any other claim for property damage related to the Property.

7. Taxes. The Owner shall be responsible for the timely payment of all real estate taxes, both general and special, levied against the property.

8. Cooperation. The Parties shall cooperate in good faith during the pendency of this Agreement. The Owner shall fully cooperate with the LSRG's efforts to remediate the LTR site.

9. Attorney's Fees. Either Party may enforce this Agreement by appropriate action, and should it prevail in such litigation, it shall recover, as part of its costs, reasonable attorneys' fees.

10. No Waiver of Rights. Nothing in this Agreement shall be construed to waive any rights, claims or privileges which the LSRG may have against any person or entity, and the LSRG expressly reserves all rights of action, claims, and demands against any and all persons and entities under all state and federal statutes and regulations.

WHEREAS, the LSRG desires unrestricted, continuous and permanent access to the Property for itself, U.S. EPA, WDNR, and their contractors, consultants and representatives;

WHEREAS, the LSRG has been investigating and remediating hazardous substance contamination at the LTR Site (the "Remediation") under the direction of the United States Environmental Protection Agency ("U.S. EPA") and the Wisconsin Department of Natural Resources ("WDNR"); pursuant to Consent Decree No. 92-C-0583 (E.D. Wis. 1992) and Administrative Order by Consent No. V-W-93-C-196 (U.S. EPA Region V, 1993) (the "AOC");

NOW, THEREFORE, in consideration of mutual promises contained in this Agreement, the sufficiency of which is hereby expressly acknowledged, the Owner and the LSRG (hereinafter collectively the "Parties") hereby agree as follows:

1. Access. The Owner grants to the LSRG, U.S. EPA, WDNR, and their contractors, consultants and representatives a perpetual easement and access to the Property for the purpose of: (a) preparing for and conducting the Remediation, including but not limited to the construction, operation and maintenance of a groundwater treatment system, a portion of which may be located on the Property and (b) any other purpose deemed reasonably necessary by the LSRG, U.S. EPA and/or WDNR, pursuant to the Consent Decree and AOC. The access and easement granted under this Agreement shall be unrestricted, continuous and permanent, shall run with the land, and shall be binding upon and inure to the benefit of the Parties hereto and their heirs, personal representatives, successors and assigns. The access and easement given by the Owner pursuant to this Agreement shall be for the sole purpose as described in subparagraph (a) and (b). In no event shall the Agreement be interpreted to provide the LSRG, or any other party, any ownership rights to the Property. Owner agrees and understands that the Property is now and will in the future be located inside a fence and that owner will not have access to the property until such time, if ever, that U.S. EPA and WDNR agree that the fence can be removed. Owner agrees to refrain from activity on the Property, or on any adjacent property, that could negatively affect the LSRG's remediation efforts or exacerbate the soil or groundwater contamination at or in the vicinity of the LTR site.

2. Warranties and Representations. The Owner represents and warrants that he has good and indefeasible fee simple title to the Property, free and clear of all liens and encumbrances. Subject to municipal and zoning ordinances and easements, the Owner represents and warrants that he has the full power and authority to convey the rights granted under this Agreement. If the Owner's representations and warranties under this Section are determined after the effective date of this Agreement to be inaccurate, the LSRG may at its sole option: (a) declare this Agreement null and void, in which case the Owner shall promptly return to the LSRG the full sum paid by the LSRG to the Owner pursuant to Section 3 (Payment of Costs) of this Agreement; or (b) agree with the Owner that this Agreement shall remain effective only if the Owner immediately obtains from all third parties with title and/or

27.18A

Document Number

ACCESS AND EASEMENT
AGREEMENT

After recording, return to:
Attorney Douglas B. Clark
Foley & Lardner
P.O. Box 1497
Madison, Wisconsin 53701-1497

See attached Exhibit A.

Parcel Identification Number(s)

This Access and Easement Agreement (the "Agreement") is dated this 14 day of May, 2001, and is between Terrence C. Lemberger (the "Owner") and the Lemberger Sites Remediation Group ("LSRG"), whose members are the City of Manitowoc, Manitowoc Company, Manitowoc Public Utilities, Newell Rubbermaid Inc., Red Arrow Products Company, LLC, Invincible Metal Furniture Company, Inc., and The Great Atlantic & Pacific Tea Company, Inc.

WHEREAS, the Owner owns property in Section 34, Township Number Twenty(20) North, Range Number Twenty-two (22) East, in the Town of Franklin, Manitowoc County, Wisconsin, more particularly described on the attached Exhibit A (the "Property").

The Property includes portions of the Lemberger Transport Recycling ("LTR")¹ Superfund site located near the Village of Whitelaw, which has been listed on the National Priority List under the Comprehensive Environmental Response, Compensation and Liability Act;

¹ The LTR site is located in the East One-half (E1/2) of the Northwest Quarter (NW1/4) of the Northeast Quarter (NE1/4) of Section Numbered Thirty-four (34), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin and the West One-half (W1/2) of the Northeast Quarter (NE1/4) of Section Numbered Thirty-four (34), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin.

Terry Lemberger

Access and Easement Agreement

EXHIBIT A

The East One-half (E1/2) of the Northeast Quarter (NE1/4) of the Northeast Quarter (NE1/4) of Section Numbered Thirty-four (34), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin, Manitowoc County, Wisconsin.

850828

Affidavit of Interest
In
Real Property

Document Number

VOL 1413 PAGE 119

STATE OF WISCONSIN - MANITOWOC COUNTY
PRESTON JONES, REGISTER OF DEEDS
RECEIVED FOR RECORD

14 JAN 2000 11:01:54 AM

DOUGLAS B. CLARK, an attorney at the law firm of Foley and Lardner and legal counsel to the Lemberger Sites Remediation Group ("LSRG"), hereby certifies that the following statements are true.

1. LSRG is a group of companies, corporations, municipalities and other parties that, as directed by the United States Environmental Protection Agency ("USEPA") and the Wisconsin Department of Natural Resources ("WDNR"), are responsible for remediating environmental contamination associated with, and allegedly originating at, the Lemberger Landfill Superfund Site and the Lemberger Transport & Recycling Site (the "Sites.")

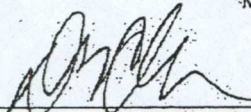
2. In order to facilitate the remediation of the Sites, LSRG and USEPA have entered into certain Access Agreements and Easement Agreements with the owners of the parcels in the vicinity of the Sites. These Access Agreements and Easements permit LSRG, USEPA, and WDNR to enter the properties to: install, operate and monitor the groundwater and leachate extraction and monitoring wells; in some cases, install, operate and monitor pipelines and associated

equipment necessary to transport groundwater and treated effluent; in some cases, install, operate and monitor landfill caps, clay and soil borrow sources; and a variety of other activities necessary to complete the USEPA and WDNR required remediation at, and associated with, the Sites.

3. The parcel described on Exhibit "A", attached hereto and incorporated herein, is subject to an Access Agreement in favor of LSRG, USEPA and WDNR. Any conveyance, transfer, lease or encumbrance affecting such property will be subject to such Access Agreements and/or Easement and the purpose of this Affidavit is to give the public notice of such interest.

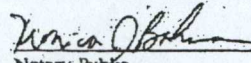
4. Additional information regarding the encumbrances on these parcels may be obtained by contacting Attorney Douglas B. Clark at:

Foley & Lardner
150 East Gilman Street
P.O. Box 1497
Madison, Wisconsin 53701-1497


Douglas B. Clark

STATE OF WISCONSIN)
) SS
COUNTY OF DANE)

Personally came before me this 12th day of January, 2000, the above named Douglas B. Clark, to me known to be the person who executed the foregoing and acknowledged the same.


Notary Public
Dane County
State of Wisconsin
My commission expires: 10/26/03

This instrument was drafted by Douglas B. Clark, Foley & Lardner.

EXHIBIT AParcel 1:

The Northeast Quarter (NE1/4) of the Southeast Quarter (SE1/4) of Section Numbered Twenty-seven (27), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin, Manitowoc County, Wisconsin.

Parcel 2:

The East One-half (E1/2) of the Northwest Quarter (NW1/4) of the Northeast Quarter (NE1/4) of Section Numbered Thirty-four (34), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin, Manitowoc County, Wisconsin and the West One-half (W1/2) of the Northeast Quarter (NE1/4) of the Northeast Quarter (NE1/4) of Section Numbered Thirty-four (34), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin, Manitowoc County, Wisconsin.

845939
Document Number

Affidavit of Interest
In
Real Property

VOL 1397 PAGE 687

STATE OF WISCONSIN - MANITOWOC COUNTY
PRESTON JONES, REGISTER OF DEEDS
RECEIVED FOR RECORD

10/15/1999 10:39:50 AM

DOUGLAS B. CLARK, an attorney at the law firm of Foley and Lardner and legal counsel to the Lemberger Sites Remediation Group ("LSRG"), hereby certifies that the following statements are true.

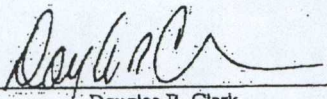
1. LSRG is a group of companies, corporations, municipalities and other parties that, as directed by the United States Environmental Protection Agency ("USEPA") and the Wisconsin Department of Natural Resources ("WDNR"), are responsible for remediating environmental contamination associated with, and allegedly originating at, the Lemberger Landfill Superfund Site and the Lemberger Transport & Recycling Site (the "Sites").

2. In order to facilitate the remediation of the Sites, LSRG and USEPA have entered into certain Access Agreements and Easement Agreements with the owners of the parcels in the vicinity of the Sites. These Access Agreements and Easements permit LSRG, USEPA, and WDNR to enter the properties to: install, operate and monitor the groundwater and leachate extraction and monitoring wells; in some cases, install, operate and monitor pipelines and associated equipment necessary to transport groundwater and treated effluent; in some cases, install, operate and monitor landfill caps, clay and soil borrow sources; and a variety of other activities necessary to complete the USEPA and WDNR required remediation at, and associated with, the Sites.

3. The parcels described on Exhibit "A", attached hereto and incorporated herein, are subject to an Access Agreement in favor of LSRG, USEPA and WDNR. Any conveyance, transfer, lease or encumbrance affecting such property will be subject to such Access Agreements and/or Easements and the purpose of this Affidavit is to give the public notice of such interest.

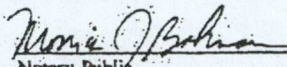
4. Additional information regarding the encumbrances on these parcels may be obtained by contacting Attorney Douglas B. Clark at:

Foley & Lardner
150 East Gilman Street
P.O. Box 1497
Madison, Wisconsin 53701-1497


Douglas B. Clark

STATE OF WISCONSIN)
COUNTY OF DANE) SS

Personally came before me this 12th day of October, 1999, the above named Douglas B. Clark, to me known to be the person who executed the foregoing and acknowledged the same.


Notary Public
Dane County
State of Wisconsin
My commission expires October 31, 1999.

This instrument was drafted by Douglas B. Clark, Foley & Lardner.

687

NR 0146211

EXHIBIT A

The Southwest $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section Number 27, Township Number 20 North, Range Number 22 East of the Fourth Principal Meridian, located in the Town of Franklin, County of Manitowoc, State of Wisconsin.

Parcel No.: 5-027-015-001.00
5-027-015-002.00

842315

160

Affidavit of Interest
In
Real Property

Document Number

VOL 1387 PAGE 160

STATE OF WISCONSIN - MARSHWOC COUNTY
PRESTON JONES, REGISTERS OF DEEDS
RECEIVED FOR RECORD

17 AUG 1999 1:32:41 PM

DOUGLAS B. CLARK, an attorney at the law firm of Foley and Lardner and legal counsel to the Lemberger Sites Remediation Group ("LSRG"), hereby certifies that the following statements are true:

1. LSRG is a group of companies, corporations, municipalities and other parties that, as directed by the United States Environmental Protection Agency ("USEPA") and the Wisconsin Department of Natural Resources ("WDNR"), are responsible for remediating environmental contamination associated with, and allegedly originating at, the Lemberger Landfill Superfund Site and the Lemberger Transport & Recycling Site (the "Sites.")

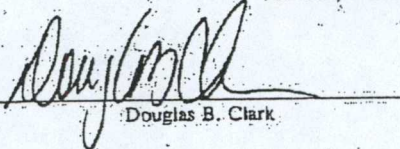
2. In order to facilitate the remediation of the Sites, LSRG and USEPA have entered into certain Access Agreements and Easement Agreements with the owners of the parcels in the vicinity of the Sites. These Access Agreements and Easements permit LSRG, USEPA, and WDNR to enter the properties to install, operate and monitor the groundwater and leachate extraction and monitoring wells; in some cases, install, operate and monitor pipelines and associated

equipment necessary to transport groundwater and treated effluent; in some cases, install, operate and monitor landfill caps, clay and soil borrow sources; and a variety of other activities necessary to complete the USEPA and WDNR required remediation at, and associated with, the Sites.

3. The parcel described on Exhibit "A", attached hereto and incorporated herein, is subject to Access Agreements and/or Easements in favor of LSRG, USEPA and WDNR. Any conveyance, transfer, lease or encumbrance affecting such property will be subject to such Access Agreements and/or Easements and the purpose of this Affidavit is to give the public notice of such interest.

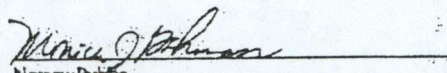
4. Additional information regarding the encumbrances on this parcel may be obtained by contacting Attorney Douglas B. Clark at:

Foley & Lardner
150 East Gilman Street
P.O. Box 1497
Madison, Wisconsin 53701-1497


Douglas B. Clark

STATE OF WISCONSIN)
) SS
COUNTY OF DANE)

Personally came before me this 16th day of August, 1999, the above-named DOUGLAS B. CLARK, to me known to be the person who executed the foregoing and acknowledged the same.


Notary Public
Dave, County
State of WISCONSIN
My commission 10/31/99

This instrument was drafted by Douglas B. Clark, Foley & Lardner.

Lemberger

Affidavits of Interest in Real Property



VOL 1442 453

EXHIBIT AParcel 1:

The Northeast Quarter (NE1/4) of the Southeast Quarter (SE1/4) of Section Numbered Twenty-seven (27), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin, Manitowoc County, Wisconsin.

Parcel No.: 5-027-012-00.00

Parcel 2:

The East One-half (E1/2) of the Northwest Quarter (NW1/4) of the Northeast Quarter (NE1/4) of Section Numbered Thirty-four (34), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin, Manitowoc County, Wisconsin and the Northeast Quarter (NE1/4) of the Northeast Quarter (NE1/4) of Section Numbered Thirty-four (34), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin, Manitowoc County, Wisconsin.

Parcel No.: 5-034-002-001.00
5-034-001-000.00

Parcel 3:

The Southwest 1/4 of the Southeast 1/4 of Section Number 27, Township Number 20 North, Range Number 22 East of the Fourth Principal Meridian, located in the Town of Franklin, County of Manitowoc, State of Wisconsin.

Parcel No.: 5-027-015-001.00
5-027-015-002.00

NR 0146209



IN WITNESS WHEREOF, the Parties hereto, which may be represented by and through their appointed counsel, enter into this Agreement. Each person signing this Agreement represents and warrants that he or she has the full power and authority to enter into this Agreement.

Kenneth J. Lemberger
Kenneth J. Lemberger, Owner

6-23-00
Date

Douglas B. Clark
Douglas B. Clark, Foley & Lardner
Attorney for the Lemberger Sites
Remediation Group

6/23/00
Date

STATE OF WISCONSIN)
) ss.
COUNTY OF DANE)

Personally came before me this 23rd day of June, 2000, the above-named Kenneth J. Lemberger, to me known to be the person who executed the foregoing instrument and acknowledge that he executed the same.

Monica J. Bohman
Monica J. Bohman
Notary Public, Dane County, Wisconsin
My commission expires October 26, 2003

STATE OF WISCONSIN)
) ss.
COUNTY OF DANE)

Personally came before me this 23rd day of June, 2000, the above-named Douglas B. Clark, to me known to be the person who executed the foregoing instrument and acknowledge that he executed the same.

Monica J. Bohman
Monica J. Bohman
Notary Public, Dane County, Wisconsin
My commission expires October 26, 2003

DRAFTED BY:

ATTORNEY DOUGLAS B. CLARK
FOLEY & LARDNER
POB 1497
MADISON, WI 53701-1497

NR 0146208



13. Notice. Notices relating to this Agreement shall be sent to the following:

Douglas B. Clark
Foley & Lardner
P.O. Box 1497
150 E. Gilman Street
Madison, WI 53701-1497
(414)297-5826 (Milwaukee)
(608)258-4276 (Madison)

Kenneth Lemberger
10007 Rief Mills Road
Cato, WI 54206
(414)732-4324

14. Amendment and Termination. This Agreement may be amended only by the written agreement of both Parties. This Agreement shall remain in effect until the LSRG provides written notice to the Owner that the activities described herein are concluded, or upon the written agreement of both Parties.

15. Binding Effect. This Agreement, including the benefits and burdens, shall run with the Property and is binding upon and shall inure to the benefit of the Parties hereto and their heirs, personal representatives, successors, and assigns.

16. No Admission of Liability. This Agreement is not an admission of liability on the part of LSRG and/or the Owner.

17. Entire Agreement. This Agreement reflects the entire agreement between the LSRG and the Owner with respect to the matters contained herein, and no statements, promises, or inducements, including without limitation, the contents of the Prior Agreement, that are not contained herein shall be valid or binding.

18. Severability. If any provision of this Agreement is deemed invalid or unenforceable, the balance of this Agreement shall remain in full force and effect.

19. Governing Law. This Agreement shall be interpreted under the laws of the State of Wisconsin.

20. Advice of Counsel. The Owner has read this Agreement, has had opportunity to consult with legal counsel, and represents that he knows and understands the content and meaning of the Agreement.

21. Headings. The Section headings contained herein are for convenience only and shall not be deemed to limit, construe, affect or alter the meaning of such Sections.



6. Restoration/Release. Pursuant to the Prior Agreement the LSRG had agreed to perform restoration of the Property upon completion of the Remediation. In full satisfaction of those restoration obligations under the Prior Agreement, LSRG, concurrently with the execution of this Agreement, is paying to Owner the sum of \$75,000 (the "Restoration Payment"). The parties agree that the Restoration Payment will fulfill any and all restoration obligations of the LSRG relating to the Remediation conducted to date on any of the Property, and the parties also agree that the Restoration Payment shall fulfill any and all restoration obligations of the LSRG relating to any remediation to be conducted in the future on the following parcels: (i) LL, including the adjacent property within the existing fence; (ii) the LTR, including the adjacent property within the existing fence; and (iii) the Southwest $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section 27 (collectively, the "Released Properties"). The Owner hereby acknowledges that the Restoration Payment is being paid in fulfillment of the LSRG's restoration obligations with respect to the Released Properties and hereby releases LSRG from any present or future obligations to restore the Released Properties during or upon completion of the Remediation.

7. Continuing Obligation to Restore. Notwithstanding the terms of Section 6, the LSRG agrees to restore the areas of the Property, other than the Released Property, where work will be performed subsequent to the date of this Agreement, to its original grade and appearance, to the extent practicable. However, at the conclusion of the Remediation, the LSRG may, at its sole option, leave on the Property, including the Released Property, any underground pipeline installed on the Property.

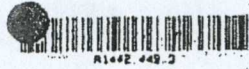
8. Taxes. The Owner shall be responsible for the timely payment of all real estate taxes, both general and special, levied against the property.

9. Cooperation. The Parties shall cooperate in good faith during the pendency of this Agreement. Except as otherwise specified in this Agreement, the LSRG shall use the Property in a manner so as not to unreasonably interfere with the Owner's rights of reasonable use of the Property. The Owner shall fully cooperate with the LSRG's efforts to remediate the LL and LTR sites and shall assist with the LSRG's efforts to obtain access from other property owners near the LL and the LTR sites.

10. Attorney's Fees. Either Party may enforce this Agreement by appropriate action, and should it prevail in such litigation, it shall recover, as part of its costs, reasonable attorneys' fees.

11. No Waiver of Rights. Nothing in this Agreement shall be construed to waive any rights, claims or privileges which the LSRG may have against any person or entity, and the LSRG expressly reserves all rights of action, claims, and demands against any and all persons and entities under all state and federal statutes and regulations.

12. Compliance with Applicable Laws. The LSRG shall comply with all applicable federal, state or local laws ordinances, rules, orders, or regulations in conducting work on the Property pursuant to this Agreement.



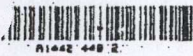
access is needed. In no event shall the Agreement be interpreted to provide the LSRG, or any other party, any ownership rights to the Property, or the right to interfere with the Owner's use of the Property, except to the extent Owner's use or access is regulated by law, or Owner's use or access interferes with the LSRG's remediation activities on the Property. Owner agrees to refrain from activity on the Property that could negatively affect the LSRG's remediation efforts or exacerbate the soil or groundwater contamination at or in the vicinity of the LL or LTR sites.

2. Warranties and Representations. The Owner represents and warrants that he has good and indefeasible fee simple title to the Property, free and clear of all liens and encumbrances, except that the Owner owes to the County of Manitowoc back taxes on a portion of the Property. Subject to municipal and zoning ordinances and easements, the Owner represents and warrants that he has the full power and authority to convey the rights granted under this Agreement. If the Owner's representations and warranties under this Section are determined after the effective date of this Agreement to be inaccurate, the LSRG may at its sole option: (a) declare this Agreement null and void, in which case the Owner shall promptly return to the LSRG the full sum paid by the LSRG to the Owner pursuant to Section 3 (Payment of Costs) of this Agreement; or (b) agree with the Owner that this Agreement shall remain effective only if the Owner immediately obtains from all third parties with title and/or rights to the Property a written agreement that such parties shall be bound by the terms of this Agreement, without compensation by the LSRG.

3. Payment of Costs. In consideration for the access and easement granted in this Agreement, the LSRG paid the Owner the sum of Two Hundred Thirty Six Thousand Dollars (\$236,000), as required by the Prior Agreement. Other than as provided in Section 6 hereof, the LSRG shall not be responsible for or be required to reimburse the Owner for any other costs, including without limitation the value of any crops, trees or vegetation on the Property which are damaged or destroyed as a result of the access or easement granted under this Agreement.

4. Improvements. The LSRG shall be responsible for and shall pay all costs incurred in connection with the installation, operation and maintenance of all structures and equipment placed on the Property in connection with the Remediation or any other activities specified in Section 1 (Access) of this Agreement.

5. Indemnification. The LSRG shall indemnify and hold the Owner harmless from and against any and all physical injuries to persons and damage to personal property caused by the actions of the LSRG or their contractors, consultants, and representatives, on the Property arising out of or relating to the access granted under this Agreement, provided, however, that this indemnity shall not apply to any injuries, death, damages, claims, losses, demands, expenses or liabilities that: (a) are caused by the Owner or any third party who is not an agent, employee or contractor (including subcontractors) of the LSRG; or (b) result from the presence of hazardous substances on the Property, unless the damage or injury was caused by an act or omission of the LSRG or its contractors, consultants and representatives.



have been listed on the National Priority List under the Comprehensive Environmental Response, Compensation and Liability Act;

WHEREAS, the Owner and the LSRG previously executed a Global Access Agreement dated May 31, 1995 (the "Prior Agreement"), which prior Agreement specified the conditions upon which the LSRG was granted unrestricted, continuous and permanent access to the Property for itself, U.S. EPA, WDNR, and their contractors, consultants and representatives;

WHEREAS, pursuant to the Prior Agreement the LSRG has been investigating and remediating hazardous substance contamination at the LL and the LTR Sites (the "Remediation") under the direction of the United States Environmental Protection Agency ("U.S. EPA") and the Wisconsin Department of Natural Resources ("WDNR"), pursuant to Consent Decree No. 92-C-0583 (E.D. Wis. 1992) and Administrative Order by Consent No. V-W-93-C-196 (U.S. EPA Region V, 1993) (the "AOC");

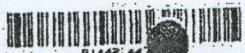
WHEREAS, the Prior Agreement required that the LSRG perform certain restoration after the completion of the Remediation;

WHEREAS, the parties wish to amend and restate the Prior Agreement in its entirety in order to clarify the obligations of the parties with respect to Restoration and to put this Agreement in a recordable form.

NOW, THEREFORE, in consideration of mutual promises contained in this Agreement, the sufficiency of which is hereby expressly acknowledged, the Owner and the LSRG (hereinafter collectively the "Parties") hereby agree as follows:

1. Access. The Owner grants to the LSRG, U.S. EPA, WDNR, and their contractors, consultants and representatives a perpetual easement and access to the Property for the purpose of: (a) preparing for and conducting the Remediation, including but not limited to the construction, operation and maintenance of a groundwater treatment system, a portion of which may be located on the Property; (b) locating and excavating clay and other borrow materials from the Property;³ and (c) any other purpose deemed reasonably necessary by the LSRG, U.S. EPA and/or WDNR, pursuant to the Consent Decree and AOC. The LSRG shall attempt, but is not required, to give the Owner prior notice, written or otherwise, before entering onto the Property pursuant to this Agreement. The access and easement granted under this Agreement shall be unrestricted, continuous and permanent, shall run with the land, and shall be binding upon and inure to the benefit of the Parties hereto and their heirs, personal representatives, successors and assigns. The access and easement given by the Owner pursuant to this Agreement shall be for the sole purpose as described in subparagraph (a) and (b). Subparagraph (c) shall not be interpreted to expand the purposes for which access is given, but shall be interpreted to be consistent with subparagraphs (a) and (b) and the purpose for which

³ Subparagraph (b) does not include any costs of purchasing clay and other borrow materials from the Owner, but only includes the payment for access to the property.



Document Number
860130

**AMENDED AND RESTATED
GLOBAL ACCESS AND
EASEMENT AGREEMENT**

RECEIPT # 4896
\$22.00 MISC

STATE OF WISCONSIN
MANITOWOC COUNTY
PRESTON JONES
REGISTER OF DEEDS
RECEIVED FOR RECORD
14 JUL 2000 12:46:09 PM

After recording, return to:
Attorney Douglas B. Clark Foley & Lardner P.O. Box 1497 Madison, Wisconsin 53701-1497 <i>\$22.00</i>
See attached Exhibit A
Parcel Identification Number(s)

This Amended and Restated Global Access and Easement Agreement (the "Agreement") is dated this 23rd day of June, 2000, and is between Kenneth J. Lemberger (the "Owner") and the Lemberger Sites Remediation Group ("LSRG"), whose members are the City of Manitowoc, Manitowoc Company, Manitowoc Public Utilities, Newell Company, Red Arrow Products Company, LLC, Invincible Metal Furniture Company, Inc., The Great Atlantic & Pacific Tea Company, Inc.

WHEREAS, the Owner owns several contiguous and non-contiguous parcels of property in Section 27 and Section 34, Township Number Twenty(20) North, Range Number Twenty-two (22) East, in the Town of Franklin, Manitowoc County, Wisconsin, more particularly described on the attached Exhibit A (collectively, the "Property").

The Property includes the Lemberger Landfill ("LL")¹ and the Lemberger Transport Recycling ("LTR")² Superfund sites located near the Village of Whitelaw, which

¹ The LL site is located in the Northeast Quarter (NE1/4) of the Southeast Quarter (SE1/4) of Section Numbered Twenty-seven (27), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin.

² The LTR site is located in the East One-half (E1/2) of the Northwest Quarter (NW1/4) of the Northeast Quarter (NE1/4) of Section Numbered Thirty-four (34), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin and the West One-half (W1/2) of the Northeast Quarter (NE1/4) of Section Numbered Thirty-four (34), Township Numbered Twenty (20) North, Range Numbered Twenty-two (22) East, in the Town of Franklin.

Lemberger

Amended and Restated Global Access and Easement Agreement

ATTACHMENT G(1)



FOLEY & LARDNER LLP

John Steimle

July 13, 2009

Page 2

I appreciate your consideration of this request and if there is anything we can do to simplify the request or make the notification less trouble, please let me know.

Very truly yours,

FOLEY & LARDNER LLP

A handwritten signature in dark ink, appearing to read 'D. Clark', written over the firm name.

Douglas B. Clark

Cc: LSRG
Kris Krause
Mark Brooks

FOLEY

FOLEY & LARDNER LLP

July 13, 2009

ATTORNEYS AT LAW

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Vice President Planning Services
Martenson & Eisele, Inc.
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P.O. Box 449
Menasha, WI 54952-0449

John Steimle
Town of Franklin Plan Commission Chair and
Zoning Administrator
Town of Franklin
11308 Reifs Mills Road
Whitelaw, WI 54247

Re: Landfill Overlay District Designation for Lemberger Landfill and
Lemberger Transport & Recycling Superfund Sites

Gentlemen:

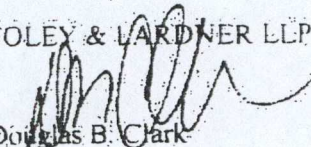
I have previously discussed with both of you the Lemberger Sites Remediation Group's ongoing interest in land use activities in the vicinity of the two superfund sites that are located in the Town of Franklin in sections 27 and 34 of Township 20 North, Range 22 East. I have contacted Mr. Utecht to correct the location of one of the superfund sites, i.e. the Lemberger Transport & Recycling Site in section 34, as shown on the current Land Use Map included in the Town's May 15, 2007 "Comprehensive Plan, 2007-2027."

In reviewing the Zoning Map (Map 2) included in the Comprehensive Plan, I noticed that the Ridgeview Landfill, owned and operated by Waste Management, is shown as zoned for "General Agriculture" but also is designated as a Landfill Overlay District. I wonder whether the two Lemberger superfund should not be similarly designated. They are both zoned "General Agriculture" but would be more correctly identified if their special status as landfills undergoing remediation was represented on the Zoning Map. Is there information that the LSRG could provide to the Town about the superfund sites or the footprint of the waste disposal areas within the sites that would assist in the reconsideration of these two superfund sites?

We look forward to your comments.

Very truly yours,

FOLEY & LARDNER LLP


Douglas B. Clark

Cc: LSRG
Kris Krause and Mark Brooks/MT

BOSTON
BRUSSELS
CHICAGO
DETROIT

JACKSONVILLE
LOS ANGELES
MADISON
MIAMI

MILWAUKEE
NEW YORK
ORLANDO
SACRAMENTO

SAN DIEGO
SAN DIEGO-DEL MAR
SAN FRANCISCO
SHANGHAI

SILICON VALLEY
TALLAHASSEE
TAMPA
TOKYO
WASHINGTON, D.C.

MADI_1984731.1

EXHIBIT A

Legal Description of Property

The Southeast 1/4 of the Southeast 1/4 of Section 27, Township 20
North, Range 22 East, in the Town of Franklin, Manitowish,
Wisconsin.



Vol 2119 PG 357



STATE OF WISCONSIN)
) SS.
COUNTY OF Manitowish)

Personally came before me this 3rd day of August, 2005, the above-named Norbert Braun who executed the foregoing instrument and acknowledged that he executed the same for the purposes therein contained.

[Signature]
Printed Name: Norbert Braun
Notary Public, State of Wisconsin
My commission: 3/1/09

STATE OF WISCONSIN)
) SS.
COUNTY OF Manitowish)

Personally came before me this 3rd day of August, 2005, the above-named Clara Gail Braun who executed the foregoing instrument and acknowledged that he executed the same for the purposes therein contained.

[Signature]
Printed Name: Norbert Braun
Notary Public, State of Wisconsin
My commission: 3/1/09

STATE OF WISCONSIN)
) SS.
COUNTY OF Manitowish)

Personally came before me this 3rd day of August, 2005, the above-named Douglas B. Clark of Lemberger Sites Remediation Group, who executed the foregoing instrument and acknowledged that he executed the same for the purposes therein contained.

[Signature]
Printed Name: Norbert Braun
Notary Public, State of Wisconsin
My commission: 3/1/09



IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first above written.

GRANTORS:

By: Norbert Braun
Norbert Braun

By: Clara Gail Braun
Clara Gail Braun

BENEFICIARY:

LEMBERGER SITES REMEDIATION GROUP

By: Douglas B. Clark
Douglas B. Clark

Its: Agent and Counsel



entitle Beneficiary to bring any action against Grantor for injury or change to the Property resulting from causes beyond Grantor's control including but not limited to fire, flood and storm.

9. Non-Waiver. Failure of Beneficiary to exercise its rights under this Agreement in the event of any breach of any term of this Agreement by Grantor shall not be deemed to be a waiver by Beneficiary of such term or of any breach or subsequent breach of the same term or any other term of this Agreement or of any of Beneficiary's rights under this Agreement.

10. Costs and Liabilities. Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep and maintenance of the Property. Grantor remains responsible for obtaining any government permits and approvals necessary in connection with Grantor's use and activities on the Property.

11. Assignment. This Agreement is transferable.

12. Subsequent Transfers. Grantor agrees to incorporate the terms of this Agreement by reference in any deed or other legal instrument by which they divest themselves of any interest in all or a portion of the Property, including without limitation, a leasehold interest. Grantor further agrees to give written notice to Beneficiary of the transfer of any interest at least forty-five (45) days prior to the date of such transfer. The failure of Grantor to perform any act required by this paragraph shall not impair the validity of this Agreement or limit its enforceability in any way.

13. Severability. If any provision of this Agreement or the application thereof to any person or circumstance is found to be invalid, the remainder of the provisions of this Agreement, or the application of such provision to persons or circumstances other than those as to which it is found to be invalid as the case may be, shall not be affected thereby.

14. Extinguishment. This Restriction shall expire and this Agreement shall be of no further force and effect 60 days following the day that Beneficiary receives notice by mail from the United States Environmental Protection Agency certifying that no further monitoring or remediation activities are required at the Lemberger Superfund Sites, or at any other time agreed upon in writing by the Grantor and Beneficiary or their assigns.

(SIGNATURE PAGE FOLLOWS)

Attachment 4 – Town of Franklin Ordinance

UNIFIED DEVELOPMENT ORDINANCE TOWN OF FRANKLIN

Adopted by the Town Board as of January 12, 2011

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SECTION 1 APPLICABILITY AND PURPOSE

1-1 Applicability and Title

1-11 These regulations are adopted under the authority granted by 60.62, 61.35, 62.23, 66.0103, and Chapter. 91, Wisconsin Statutes, and amendments thereto, and, referred to, or cited as the UNIFIED DEVELOPMENT ORDINANCE for the Town of Franklin, Manitowoc County, Wisconsin. Once the Town of Franklin approves this ordinance, 60.62(3) of the Wisconsin Statutes will require review and approval of this ordinance by Manitowoc County. This Ordinance provides a consolidated permit review process for development projects that often involve multiple approvals and permits. The zoning administrator or other designated official serves as the permit review coordinator and has discretion in scheduling hearings. Such hearings to review multiple actions may be combined in order to reduce their number.

1-12 Unless otherwise provided by this Ordinance, after the effective date of this Ordinance, no structure, land or water shall be developed, and no structure or part thereof shall be relocated, erected, moved, reconstructed, enlarged, extended, converted or structurally altered without a Zoning Permit and without full compliance with this Ordinance and all other applicable Town, County and State regulations.

1-13 The Town Board or other owner or owners of property within the town who are affected by a particular regulation, variance or conditional use under this Ordinance may sue to enforce, by injunctive order, compliance with this Ordinance.

1-14 This Unified Development Ordinance shall apply to:

1. The regulation and restriction of lot coverage, size and location of all structures, so as to prevent overcrowding and to provide adequate sunlight, air, sanitation and storm drainage.
2. The size of yards and other open spaces.
3. The density of population.
4. The regulating of non-conforming uses.
5. The location and use of buildings, structures and land for trade, industry, residence or other purposes, provided that there shall be no discrimination against temporary structures.
6. The division of land by Certified Survey Map or Subdivision, per Chapter 236 of the Wisconsin State Statutes.
7. Consistency with the Town of Franklin Comprehensive Plan, or application of a revision to the Land Use Plan to meet consistency.

1-2 Purpose

The purpose of this ordinance is to promote the public health, safety and general welfare of the town through provisions designed to:

1. Encourage an appropriate use of the land.
2. Conserve the value of land and buildings.
3. Prevent the overcrowding of land and the congestion of streets by enforcing regulations that protect the traffic-carrying capacity, safety and efficiency of all existing and future town, county, and state roadways.
4. Provide for adequate light and air.
5. Secure safety from fire, flooding, pollution, contamination, panic, and other dangers.
6. Avoid undue concentration of population.
7. Stabilize and protect existing and potential property values.
8. Encourage compatibility between different land uses and protect the scale and character of existing development from the encroachment of incompatible development.
9. Promote the goals and objectives, consistency of the Land Use Plan, and any other aspects of the Town of Franklin's Comprehensive Plan, and all amendments thereto.
10. Further the wise use, conservation, protection, and proper development of the Town's natural resources.
11. Preserve and protect the beauty and open space of the Town of Franklin.
12. Conserve and protect the agricultural lands in the town.
13. Protect and maintain safe and ample supply of groundwater
14. Provide for the timely consideration of development permit review applications.
15. State the requirements for applying for and receiving (based on ability to meet this ordinance) a development permit.
16. Authorize a consolidated permit review process for land-use decisions.
17. State the manner for the appeal of land-use decisions

SECTION 2 GENERAL PROVISIONS

2-1 Establishment of Zoning Map

The location and boundaries of the districts established shall be as shown on the map entitled the Official Zoning Map of the Town of Franklin, Manitowoc County, Wisconsin. The Official Zoning Map with all notations, dimensions, designations, references and other data shall accompany and is part of this ordinance, and upon adoption shall be signed by the Town Board Chairman and attested to by the Town Clerk. Amendments to the Official Zoning Map are described in Section 12 of this ordinance.

2-2 Interpretation of District Boundaries

Where uncertainty exists as to the boundaries of districts as shown on the official Zoning Map, the following rules shall apply:

1. Boundaries as indicated as approximately following the center lines of streets, streams, and highways shall be construed to follow such center lines.
2. Boundaries indicated as approximately following platted lot lines shall be construed as following such lot lines.
3. Where boundaries do not follow property lines and distances are not specified on the Official Zoning Map, boundaries shall be determined by the use of an engineers scale on the Official Zoning Map.
4. Legal descriptions of property, when available, shall be controlling as to the zoning of any property, or the property proposed to be rezoned in accordance with the terms of the ordinance.

2-3 Application of Regulations

The regulations set by this ordinance shall be minimum regulations and shall apply uniformly to each class or kind of structure or land, and particularly, except as hereinafter provided:

1. No land, building, or structure shall hereafter be used or occupied, and no building, structure, or part thereof shall hereafter be erected, constructed, reconstructed, moved, or structurally altered except in conformity with all the regulations herein specified for the district in which it is located.
2. No part of a yard, open space, or off-street parking space required about or in connection with any building or land use for the purpose of complying with this ordinance shall be included as part of a yard, open space, or off-street parking space similarly required for any other building.
3. No lot area and building setback existing at the effective date of adoption of this ordinance shall be reduced below the minimum requirements set forth herein. Lot area and building setback created after the effective date of adoption of this ordinance shall meet the minimum requirements established by this ordinance.

2-4 County Shoreland-Floodplain Zoning Regulations

In addition to the regulations established herein, no land, water, building or structure shall hereafter be used or occupied and no building, structure, or part thereof shall hereafter be

erected, constructed, reconstructed, moved or structurally altered except in conformity with the regulation established in the Manitowoc County Shoreland-Floodplain Zoning Ordinance, Manitowoc County, Wisconsin adopted pursuant to the Wisconsin Statutes.

2-5 Interpretation of Regulations

In their interpretation and application, the provisions of this ordinance shall be considered minimum requirements. Where the provisions of this ordinance impose greater restrictions than any statute, other regulation, ordinance or covenant, the provisions of this ordinance shall prevail. Where the provisions of any statute, other regulation, ordinance or covenant impose greater restrictions than the provisions of this ordinance, the provisions of such statute, other regulation, ordinance or covenant shall prevail.

2-6 Severability of Regulations

It is hereby declared to be the legislative intent that should any provision of this ordinance be declared invalid by a court of competent jurisdiction, such decision shall not affect the validity of this ordinance in its entirety or any part thereof other than that so declared to be invalid.

2-7 Effective Date

These regulations shall be effective following adoption by the Franklin Town Board and approval by the Manitowoc County Board.

SECTION 3 DEFINITIONS OF TERMS

3-1 Usage

Unless the context clearly indicates to the contrary, words used in the present tense include the future tense; words used in the singular number include the plural; a person includes a corporation, partnership, association, or limited liability company and any other legal entity, and the term "shall" is always mandatory. Any words not herein defined shall be construed as defined in the Wisconsin Administrative Code.

3-2 Definitions of Terms

Definitions of terms throughout this ordinance shall be interpreted to have the following meanings:

1. **Accessory Use:** With respect to land uses on a farm, "Accessory Use" means any of the following:
 - a. A building, structure, or improvement that is an integral part of, or is incidental to, an agricultural use. This may include, for example:
 - i. A facility used to store or process raw agricultural commodities, all of which are produced on the farm.
 - ii. A facility used to keep livestock on the farm.
 - iii. A facility used to store or process inputs primarily for agricultural uses on the farm.
 - iv. A facility used to keep or service vehicles or equipment primarily employed in agricultural uses on the farm.
 - v. A wind turbine or solar energy facility that collects wind or solar energy on the farm, and uses or transforms it to provide energy primarily for use on the farm.
 - vi. A manure digester, bio-fuel facility, or other facility that produces energy primarily from materials grown or produced on the farm, primarily for use on the farm.
 - vii. A waste storage or processing facility used to store or process animal waste produced solely from livestock kept on the farm.
 - b. An activity or business operation that is an integral part of, or incidental to, an agricultural use.
 - c. A farm residence, including normal residential appurtenances.
 - d. A business, activity, or enterprise, whether or not associated with an agricultural use, which meets all of the following requirements:
 - i. It is conducted on the farm by the owner or operator of the farm,
 - ii. It requires no buildings, structures, or improvements other than those described in par. (a) or (c)
 - iii. It employs no more than 4 full-time employees annually
 - iv. It does not impair or limit the current or future agricultural use of the farm or of other protected farmland.
 - e. Roadside stands, further defined in this section and subject to the conditions of paragraph "a" above.
 - f. Any other use that the department, by rule, identifies as an accessory use.
 - g. Signage (see 7-3 for regulations)
 - h. Customary home occupation or professional offices, provided such use meets the requirements of paragraph d (i, ii, and iv) and is conducted by the resident only and does not involve any employees.
2. **Agricultural Use:** Any of the following activities conducted for the purpose of producing an income or livelihood:
 - a. Crop or forage production.

- b. Keeping livestock.
 - c. Beekeeping.
 - d. Nursery, sod, or Christmas tree production.
 - e. Floriculture.
 - f. Aquaculture.
 - g. Fur farming.
 - h. Forest management.
 - i. Enrolling land in a federal agricultural commodity payment program or a federal or state agricultural land conservation payment program.
 - j. Any other use that DATCP, by rule, identifies as an agricultural use.
3. **Agriculture-related use** means a facility, whether or not located on a farm, that has at least one of the following as a primary and not merely incidental purpose:
- a. Providing agricultural supplies, agricultural equipment, agricultural inputs or agricultural services directly to farms, including farms in the Exclusive Agricultural Zoning District.
 - b. Storing, processing or handling raw agricultural commodities obtained directly from farms, including farms in the zoning district.
 - c. Slaughtering livestock, including livestock from farms in the Exclusive Agricultural Zoning District.
 - d. Marketing livestock to or from farms, including farms in the Exclusive Agricultural Zoning District.
 - e. Processing agricultural by-products or wastes received directly from farms, including farms in the Exclusive Agricultural Zoning District.
4. **Alteration:** A change or rearrangement in the structural parts of a structure, an enlargement of a structure, whether by extending on the side or by increasing the height, or the movement of a structure from one location to another.
5. **Auto Salvage Yard:** A place where more than three disabled and unlicensed motor vehicles are stored in the open for a continuous period of at least six months.
6. **Base Farm Tract:**
- a. All land, whether one parcel or two or more contiguous parcels, that is in a Exclusive Agricultural Zoning District and that is part of a single farm as of October 20, 2010, regardless of any subsequent changes in the size of the farm.
 - b. Any other tract that DATCP by rule defines as a base farm tract
7. **Block:** A parcel of land bounded on at least one (1) side by a street but may be bounded on the other sides by natural or man-made barriers or unplatted land.
8. **Board of Appeals:** Means a body designated by the legislative body to hear appeals from land-use decisions.
9. **Building:** Any structure for the shelter, support or enclosure of persons, animals, chattels or property of any kind. When separated by division walls without openings, each portion of such building, so separated shall be deemed a separate building.
10. **Building Line:** A line shown on a map which shall indicate the distance from the boundaries of a lot within which buildings shall not be erected.
11. **Certified Survey Map:** A map of a lot split prepared in accordance with s. 236.34.

12. **Common Ownership:** means ownership by the same person or persons, or a legal entity that is wholly owned by the same person or persons. "Common ownership" includes joint tenancy and tenancy in common. Solely for purposes of this definition, a parcel owned by one member of a married couple is deemed to be owned by the married couple.
13. **Contiguous:** means adjacent to or sharing a common boundary. "Contiguous" land includes land that is separated only by a river, stream, section line, public road, private road, railroad, pipeline, transmission line, or transportation or transmission right-of-way. Parcels are not "contiguous" if they meet only at a single point.
14. **Cul-de-Sac:** A short minor street having one (1) end open to motor traffic and the other end terminated by a vehicular turn-around.
15. **DATCP** An abbreviation for the Wisconsin Department of Agriculture, Trade, and Consumer Protection.
16. **Dead-End Street:** A Street having only one (1) outlet for vehicular traffic and no vehicular turn-around.
17. **Driveway:** A private way for vehicle traffic which serves only one (1) parcel or lot.
18. **Conditional Use.** A use, structure, or land which is allowable only after the issuance of a conditional use permit that is recommended by the Plan Commission and approved by the Town Board, based on conditions in this ordinance and the goals and objectives of the Comprehensive Plan.
19. **Convalescent Home, Children's Home, Nursing Home:** A place where regular care is provided to two or more infirmed persons, children, or aged persons who are not members of the family which resides on the premises.
20. **Development:** Any man-made change to improved or unimproved real estate, including but not limited to construction of or additions or substantial improvements to buildings, other structures, or accessory uses, manufactured homes, mining, dredging, filling, grading, paving, excavation or drilling operations, and deposition of materials.
21. **Dog Kennel:** A place where more than two adult dogs are boarded for a fee on a recurrent basis, or a place where more than five adult dogs are kept for any purpose.
22. **Dwelling Unit:** A room or rooms connected together, constituting a separate, independent housekeeping establishment for one family only, for owner occupancy or for rental, lease, or other occupancy on a weekly or longer basis, physically separated from any other rooms or dwelling units, and containing independent cooking and sleeping facilities.
23. **Dwelling, Single-Family Detached:** A building not containing more than one dwelling unit, entirely separated from structures on adjacent lots. The term "detached dwelling" may include forms of manufactured housing other than manufactured homes.
24. **Dwelling, Two-Family:** One building containing not more than two dwelling units or two buildings, attached at the side, with not more than one dwelling unit per building. The term "two family dwelling" is intended to imply single-family semi-detached buildings and duplexes or any form which conforms to this definition.

25. **Family:** One or more persons occupying a single dwelling unit provided that unless all members are related by blood or marriage, no such family shall contain over five persons, but further provided that domestic servants employed on the premise may be housed on the premises without being counted as family.
26. **Farm:** means a parcel of land, or a collection of 2 or more contiguous parcels of land, which meets all of the following conditions:
1. All of the land is under common ownership.
 2. More than half of the entire land area is assigned for property tax purposes to one or more of the following use classification as defined by the Wisconsin Department of Revenue pursuant to s. 70.32(2), Wis. Stats.:
 - a. Agricultural land (class 4)
 - b. Agricultural forest (class 5m)
 - c. Productive forest (class 6)
27. **Farm Acreage** – means for the purpose of section 5.34, acreage that is part of a farm, except that farm acreage does not include any nonfarm residential acreage.
28. **Farm Consolidation:** The joining together of two or more farm operations or portions thereof, which were in existence before the adoption or amendment of this ordinance, into a fewer number of farms. A farm consolidation may result in splitting the farm residence from the rest of the cropland (via a c.s.m.).
29. **Farmland Preservation Plan** means a plan for the preservation of farmland in a county, including an agricultural preservation plan under subchapter. IV of chapter 91, 2007 statutes.
30. **Farm Residence:** means any of the following structures that is located on a farm:
- a. A single-family residence that is the only residential structure on the farm or is occupied by any of the following:
 - i. An owner or operator of the farm.
 - ii. A parent or child of an owner or operator of the farm.
 - iii. An individual who earns more than 50 percent of his or her gross income from the farm.
31. **Farm Operation:** Any activity conducted primarily for the production of one or more agricultural products or commodities for sale and home use, and customarily producing such products or commodities in sufficient quantity to be capable of contributing materially to the operator's support.
32. **Feedlot:** A place where animals are fed, confined, maintained or stabled.
33. **Flag-lot:** An existing lot, created before the adoption date of this ordinance, whose shape resembles a "flag pole" from the right-of-way line back to a much larger buildable "flag" area. Upon adoption of this ordinance, flag-lots will not be permitted.
34. **Fur Farming:** Raising of fur-bearing animals for commercial purposes, such as mink, chinchilla, Llama, etc, except rabbits, but not including animals of such size or character as to normally be considered big game, e.g. lions, tigers, bears, and the like.

35. **Gross Farm Revenue:** means gross receipts from agricultural use of a farm, excluding rent receipts, less the cost or other basis of livestock or other agricultural items purchased for resale which are sold or otherwise disposed of during the taxable year. "Gross farm revenue" includes receipts accruing to a renter, but does not include rent paid to the land owner.
36. **Height, Building:** A building's vertical measurement, from the mean level of the finished grade in front of the building to the highest point on the roof line of a flat roof or of a roof having a slope of less than 15 degrees from the horizontal, and to a point midway between the peak and the eaves of a roof having a slope of 15 degrees or more.
37. **Hobby Farm.** A parcel of land where an individual or family conducts limited farm operations without the expectation of being a primary source of income.
38. **Home Occupations:** An occupation conducted as an accessory use provided it is clearly incidental and subordinate to the principal use. In all zoning districts, no home occupation shall occupy more than 25 percent of the floor area of a dwelling or be conducted in any accessory building.
39. **Horse Stable:** A place where more than three adult horses are kept on a recurrent basis.
40. **Junk Yard:** Any premises on which there is an accumulation of scrap metal, Tires, paper, rags, glass, lumber or other materials stored or customarily stored for salvage, unless such accumulation shall be housed in a completely enclosed building.
41. **Land Use:** Means the conduct of any activity on land, including, but not limited to, the continuation of any activity, the commencement of which is defined herein as "development."
42. **Livestock:** means bovine animals, equine animals, goats, poultry, sheep, swine, farm-raised deer, farm-raised game birds, camelids, ratites and farm-raised fish.
43. **Lot:** A parcel of land used or set aside and available for use as the site for one or more buildings accessory thereto, or for any other purpose, in one ownership and not divided by a street nor including any land within the limits of a public or private street right-of-way. The term "record lot" shall mean land designated as a distinct and separate parcel on a legally recorded deed or plat in the County Clerk's Office.
44. **Lot Area:** The total horizontal area within the lot lines of the lot.
45. **Lot Frontage:** The front of a lot shall be construed to be the portion nearest the street. For the purposes of determining yard requirements on corner lots, all sides of a lot adjacent to streets shall be considered frontage.
46. **Lot Line:** The line on the official map that indicated lot boundaries provided any street right-of-way line shall be considered lot lines for the purpose of this ordinance.
47. **Lot Types:**
- Corner lot is a lot located at the intersection of two or more streets. A lot abutting a curved street shall be considered a corner lot when the projected tangents of the lot lines along those streets meet at an interior angle of less than 135 degrees.

- b. Interior lot is a lot with only one frontage on a street.
 - c. Through lot is a lot other than a corner lot with frontage on two streets
48. **Lot Split:** means a division of land other than by a subdivision.
49. **Lot Width:** Width of a lot shall be considered the measurement at the front yard line.
50. **Manufactured Home:** A structure certified and labeled as a manufactured home under 42 USC Section 5401-5426, which, when placed on the site:
- a. Is set on an enclosed continuous foundation in accordance with Sec. 70.043(1), Wis. Stats., and COMM 21, Subchapters III, IV, and V, Wis. Adm. Code, or is set on a comparable enclosed continuous foundation system approved by the Building Inspector, who may require a plan for such foundation to be certified by a registered architect or engineer to ensure proper support for such structure
 - b. Is installed in accordance with the manufacturer's instructions
 - c. Is properly connected to utilities
 - d. Meets other applicable standards of this Chapter
51. **Mobile Home:** That which is, or was as originally constructed, designed to be transported by any motor vehicle upon a public highway, and designed, equipped and used primarily for sleeping, eating and living quarters, or is intended to be so used; including any additions, attachments, annexes, foundations and appurtenances. In the purpose of this Section, a mobile home shall remain classified as a mobile home regardless of whether its wheels or other rolling devices have been removed or not, and even though assessable value of additions, attachments, annexes, foundations and appurtenances or other added investments to the mobile home equal or exceed fifty percent (50%) of the assessable value of the mobile home. Excluded from this definition are "manufactured homes" as previously defined:

Note: Mobile Homes vs. Modular Homes

"Mobile homes" have been required to follow construction standards, including heating, electrical and plumbing, since 1976 through a Federal Housing and Urban Development (HUD) program. In Wisconsin this is administered under contract by the Division of Safety and Buildings, Wisconsin Department of Commerce.

The current proper and legal term for mobile homes is "manufactured homes". While the manufactured home itself is not covered by the UDC, any site-built addition to that home, such as a basement, crawl space or room addition attached to the home, does have to be constructed to meet the requirements of the UDC if the manufactured home was built after June 1, 1980.

While manufactured homes are constructed to the HUD construction standards, "manufactured dwellings" must meet the UDC standards. Such non-HUD factory built homes are referred to as "manufactured dwellings". However, double-wide manufactured mobile homes often are similar in appearance to modular homes.

For purposes of identification, a manufactured (mobile) home is identified with a red metal rectangular label affixed to the rear of each full or half unit. This indicates the home has been constructed in accordance with the HUD manufactured home standards.

In contrast, a modular home or manufactured dwelling will be identified with a red plastic sticker, called a "Wisconsin Insignia", imprinted with the outline of the State of Wisconsin. It will usually be affixed to the electrical panel, vanity base cabinet or kitchen cabinet. Inspectors must first identify what they are looking at before applying, the applicable code regulations.

52. **Modular Home:** A structure which is partially pre-assembled at a manufacturing plant and placed together on a lot or parcel as a dwelling unit or units. Also called prefabricated or pre-cut homes. A double-wide structure transported and assembled at the site on a permanent foundation shall be construed as a modular home. For the purpose of this Ordinance, modular homes must meet the requirements of all applicable State and Local Building Codes. A modular home is subject to COMM 20.13, Wis. Adm. Code.
53. **Nonconforming Use:** Any use of land, buildings or structures which does not comply with all of the regulations of this Chapter or of any amendment hereto governing use for the zoning district in which such use is located, and that the nonconforming use existed as of the adoption date of this ordinance, being November 7, 1983.
54. **Nonfarm residence:** Means a single-family residence other than a farm residence.
55. **Nonfarm Residential Acreage:** Means, for purposes of section 5-34(2), the combined total acreage of all parcels on which nonfarm residences are located, all parcels on which the Town of Franklin has approved nonfarm residences, all parcels that do not qualify as farms, and the parcel to which the conditional use permit application pertains.
56. **Non-Metallic Mining:** Operations or activities at a nonmetallic mining site for the extraction from the earth of material consisting principally of naturally occurring, organic or non-organic, nonmetallic, nonrenewable material. Nonmetallic minerals include, but are not limited to stone, gravel, clay peat, talc or topsoil. Nonmetallic mining may involve the use of mining equipment or techniques to remove materials from the in-place non-metallic mineral deposit, including drilling and blasting, as well as associated activities such as topsoil removal, excavation, grading and dredging. Processing the material may include, but are not limited to stockpiling of materials, blending mineral aggregates or nonmetallic minerals with other mineral aggregates or nonmetallic minerals, crushing, screening, scalping, pulverizing, and de-watering.
57. **Nursery:** Any building or lot, or portion thereof, used for the cultivation or growing of plants and including all accessory buildings.
58. **Open space parcel:** means a parcel on which no buildings, other than hunting blinds or small sheds, have been constructed or approved for construction.
59. **Person:** means an individual, corporation, partnership, limited liability company (LLC), trust, estate or other legal entity.
60. **Outlot:** An "outlot" is a parcel of land, other than a lot or block, so designated in a plat.
61. **Parking Space:** An off-street space available for the parking of a motor vehicle and which is exclusive of passageways and driveways, appurtenant thereto and giving access thereto.
62. **Plat:** A map of a subdivision.

63. **Prime farmland** means any of the following:
 - a. An area with a class I or class II land capability classification as identified by the natural Resources Conservation Service of the Federal Department of Agriculture.
 - b. Land, other than land described in paragraph a, that is identified as prime farmland in the Manitowoc County Farmland Preservation Plan
64. **Prior non-conforming use:** means a land use that does not comply with the Exclusive Agricultural Zoning District, but which lawfully existed prior to the application of this ordinance.
65. **Professional Office** The office of a doctor, practitioner, dentist, minister, architect, landscape architect, professional engineer, lawyer, author, musician, beauty parlor or barbershop or other recognized profession. When established in the Rural Residential or any of the Agricultural Districts, a professional office shall be incidental to the residential occupation; not more than 25% of the floor area of only 1 story of a dwelling unit shall be occupied by such office, except that a beauty parlor shall be limited to 2 licensed operators working at any one time, and a barbershop to 2 licensed barbers operating in not to exceed 2 barber chairs at any one time; and provided further that a beauty parlor or barbershop shall not occupy over 500 square feet of floor area, including lavatories and waiting room; and only 1 unlighted name plate, not exceeding 4 square feet in area, containing the name and profession of the occupant of the premises shall be exhibited.
66. **Protected farmland:** means land that is any of the following:
 - a. Located in an Exclusive Agricultural Zoning District certified under ch. 91, Wis. Stats.
 - b. Covered by an Exclusive Agricultural agreement under ch. 91, Wis. Stats.
 - c. Covered by an agricultural conservation easement under s. 93.73, Wis. Stats.
 - d. Otherwise legally protected from nonagricultural development.
67. **Reconstruction:** Repairs or the replacement of structural components of a structure exceeding 50 percent of the replacement cost of the structure.
68. **Rezoning:** An amendment that changes the Zoning Map.
69. **Right-of-Way:** The width between property lines of a street or highway easement.
70. **Roadside Stand:** A structure not permanently fixed to the ground area and that is readily removable in its entirety, covered or uncovered and not wholly enclosed, and used solely for the sale of farm products produced on the premises. No such roadside stand shall be more than 300 square feet in ground area and there shall be not more than one roadside stand on any one premise.
71. **Salvage Yard:** A facility whose primary purpose is the storage, recycling and/or reprocessing of junk or salvage materials, including vehicles, machinery and/or other equipment.
72. **Sanitary Landfill:** A solid waste facility for solid waste disposal as defined in s. 289.01 (35), and s. 289.01 (34), licensed under s. 289.31 Wis. Stat.

73. **Service Station:** Buildings and premises where gasoline, oil, grease, batteries, tires, and automobile accessories may be supplied and dispensed at retail and where, in addition, minor repair work may be performed.
74. **Setback:** The minimum horizontal distance from the lot line along the front, back and side lot lines, or any projection thereof, excluding uncovered steps; or when specified between the centerline of the road and the nearest point of the building. Based on the Manitowoc Setback Ordinance (Chapter 10) and a more restrictive Town standard for Town Roads in the EAG, AG and CE zoning categories, building setbacks from the following roads are as follows:
- a. Town Road (Class 1) is 60' from centerline but not less than 25' from right-of-way line in the R-1, C-1, LF and CON zoning categories.
 - b. County or State Roads (Class 2 & 3) and Town Roads in the EAG, AG and CE zoning categories is 100' from centerline but not less than 25' from right-of-way line.
 - c. Class 4 Road (see Chapter 10 for details)
 - d. See Chapter 10 for additional setback requirements relative to a site triangle that applies to lots at intersections.
75. **Sign:** Any structure, part thereof, or device attached or unattached thereto or painted or represented thereon which displays or includes any numeral, letter, word, model, banner, emblem, device, trademark or other representation used as, or in the nature of, an announcement, advertisement, direction or designation of any person or thing in such a manner as to attract attention from the outside of the building.
76. **Sign, On-Site:** A sign relating in its subject matter to the premises on which it is located.
77. **Sign, Number of:** For the purposes of determining number of signs, a sign shall be considered to be a single display surface or device containing elements organized, related, and composed to form a unit. Where subject matter is displayed randomly without any organization of the elements, each element shall be considered to be one sign.
78. **Sign, Types:**
- a. Detached sign is a sign not attached to or painted on a building but which is affixed to the ground, fence, or wall not part of a building.
 - b. Flat sign is a sign attached to or parallel to the face of a building or erected or painted on the outside wall of a building and where support of such sign is provided by the wall. No part of such sign shall extend more than 18" from the building.
 - c. Marquee sign is a sign attached to or hung from a marquee projecting from and supported by a building.
 - d. Projecting sign is a sign attached to and projecting 18 inches or more from the face of the wall of a building.
79. **Structural Alteration:** Any change in the bearing walls, columns, beams, girders, or supporting members of a structure; any change or rearrangement in the floor area of a building, any enlargement of a structure whether by extending horizontally or by

increasing in height, and/or any movement of a structure from one (1) location or position to another.

80. **Structure:** Anything constructed or erected with a fixed location on the ground, or attached to something with a fixed location on the ground. Among other things structures include signs, fences, manufactured homes and parking lots.
81. **Subdivision:** A division of a lot, parcel, or tract of land by the owner thereof or his agent for the purpose of sale or of building development, where:
 - a. The act of division creates five (5) or more parcels or building sites of 1.5 acres each or less in area; or
 - b. Five (5) or more parcels or building sites of 1.5 acres each or less in area are created by successive divisions within a period of five (5) years.
82. **Use:** The use of property is the purpose or activity for which the land or building thereon is designed, arranged or intended, or for which it is occupied or maintained, and shall include any manner of standards of this Chapter.
83. **Use, Principal:** The main use of land or buildings as distinguished from a subordinate or accessory use. A principal use may be "permitted" or "conditional."
84. **Use, Permitted:** A use which may be lawfully established in a particular district or districts, provided it conforms with all requirements, regulations and performance standards, if any, of such districts.
85. **Variance:** A relaxation of the terms of the ordinance where such variance will not be contrary to the public interest and where, owing to conditions peculiar to the property and not the result of the actions of the applicant, a literal enforcement of the ordinance would result in unnecessary and undue hardship.
86. **Wind Generator:** A device, typically tower mounted, whose primary purpose is the generation of energy from a wind-powered source.
87. **Yard:** An open space that is unoccupied and unobstructed from the ground upward provided, however, that fences, walls, poles, posts and other customary yard accessory ornaments and furniture may be permitted in any yard subject to the height limitations and requirements limiting obstruction of visibility.
88. **Yard, Front:** A yard extending across the front of a lot between the side lot lines and extending from the street right-of-way to the nearest principal structure or projection of the principal structure.
89. **Yard, Rear:** A yard extending across the rear of a lot between the side lot lines, and extending from the rear lot line to the nearest principal structure or projection of the principal structure.
90. **Yard, Side:** A yard extending between the nearest building or projection thereto and the side lot line, and extending from the front yard to the rear yard.
91. **Zoning District:** An area or areas within the corporate limits for which the regulations and requirements governing use, lot and bulk of buildings and premises are uniform.

92. Zoning Administrator: A local governmental official or designated agent which administers and enforces the Unified Development Ordinance and land development regulations, including the issuance of zoning permits.

SECTION 4 NONCONFORMITIES

4-1 Applicability and Intent

It is the intent of this ordinance to permit nonconformities to continue, subject to certain restrictions.

4-2 Nonconforming Uses of Land (or Land with Minor Structures Only)

Where, at the effective date of adoption being November 7, 1983, a use of land exists which would not be permitted or permissible in the district in which it is located, or where such use involves a structure with a replacement value of less than \$5,000, such use may be continued subject to the following restrictions:

1. Such use shall not be enlarged, increased, nor extended to occupy a greater area of the lot than was occupied at the effective date of adoption or amendment of this ordinance.
2. Such use shall not be moved in whole or in part to any other portion of the lot other than that portion occupied by such use at the effective date of adoption of this ordinance.
3. When such use of land is discontinued or abandoned for a period of more than 180 consecutive days for any reason whatever or when such use is replaced by a permitted or permissible use, a nonconforming use shall not thereafter be resumed.
4. No additional structure in connection with such use shall be erected.

4-3 Nonconforming Uses of Structures

Where, at the effective date of adoption being November 7, 1983, the use of an existing structure would not be permitted or permissible in the district in which it is located, and where such use involves a structure with a replacement value exceeding \$5,000, such use may be continued subject to the following restrictions:

1. Such use shall not be enlarged or extended to more than 50 percent of the floor area devoted to such use at the effective date of adoption or amendment of this ordinance.
2. When such use of a structure is discontinued or abandoned for a period of 12 consecutive months for any reason whatever, or when such use is replaced by a permitted or permissible use, the nonconforming use shall thereafter not be resumed.

4-4 Nonconforming Structures

Where at the effective date of adoption being November 7, 1983, a structure exists which could not be erected in the district in which it is located by reason of restriction on height, yards, its location on the lot or other requirements concerning the structure, such structure may continue in existence subject to the following restrictions:

1. Such structure shall not be altered in any manner which would increase the degree of nonconformity of structural conditions, height, or yard setback.

2. Due to violent wind, vandalism, fire, flood, ice, snow, mold, or infestation, the structure may be restored to the size and use that it had immediately before the damage or destruction occurred or to a larger size if necessary for the structure to comply with applicable state or federal requirements.

4-5 Nonconforming Characteristics of Use

If characteristics of use such as lighting, parking or other matters pertaining to the use of land, structures and premises are made nonconforming by the provisions of this ordinance as adopted or amended, no change shall thereafter be made in such characteristics of use which increases the nonconformity; provided, however, that changes may be made which do not increase, or which decrease, such nonconformity.

4-6 Nonconforming Lots of Record

If a single lot or two or more lots or combination of lots and portions of lots with continuous frontage in single ownership are of record at the effective date of adoption being November 7, 1983, or amendment of this ordinance, the lands involved shall be considered to be an individual parcel for the purpose of this ordinance, and such parcel shall be allowed for developmental use even though it does not meet the lot area and lot width requirements for the district in which it is located.

4-7 Repairs and Maintenance

Nothing in this ordinance shall be deemed to prevent normal maintenance or repair of any structure or to prevent restoring to a safe condition any structure declared to be unsafe.

4-8 Changes to a Nonconforming Use or Structure

Anyone wishing to change or enlarge a nonconforming use or structure shall obtain a variance from the Board of Appeals, as provided in Section 11 of this ordinance.

4-9 EAG Exclusive Agricultural District Application

Nonconforming regulations apply in the Exclusive Agricultural District, only if the nonconforming use, structure, or substandard lot existed prior to November 7, 1983.

SECTION 5 SCHEDULE OF DISTRICT REGULATIONS

5-1 Establishment of Districts

For the purpose of this ordinance, the Town of Franklin is hereby divided into the following districts:

1. EAG - Exclusive Agricultural District
2. AG - General Agricultural District
3. C-E - Country Estates District
4. R-1 - Rural Residential District
5. C-I - General Commercial-Industrial District
6. LF - Landfill Overlay District
7. CON - Conservancy District

5-2 Interpretation and Organization

1. Permitted uses and structures listed for any district shall be permitted by right, subject to conditions as specified. Conditional uses and structures listed for any district are permissible only upon approval by the Plan Commission subject to the conditions as specified and any other conditions as may be imposed by the Plan Commission as provided in Section 10 of this ordinance.
2. All uses and structures and dimensional requirements shall be subject to Section 6 (Supplementary District Regulations), as applicable.
3. The relationship of the Town of Franklin Land Use Plan categories to existing zoning is generally as follows:

TABLE 1
LAND USE/ZONING COMPARISON

Land Use Plan Designation	Existing Zoning	Preferred Zoning
Agriculture	EAG and AG	EAG and AG
Expansion Farming	EAG	EAG
Residential	EAG and AG	C-E
Residential Encouragement	EAG, AG, R-1	R-1
Business	C-I	C-I
Communications/Utilities	EAG, AG	EAG & AG with Conditional Use
Governmental/Institutional	C-I	C-I
Parks	R-1	R-1
Cemeteries	AG	R-1
Landfills	LF, R-1, EAG, AG	LF Landfill Overlay
Non-metallic Mining	EAG or AG	EAG & AG with Conditional Use

SECTION 5-3 EAG EXCLUSIVE AGRICULTURAL DISTRICT

5-31 PURPOSE

The intent of this district is to maintain highly productive agricultural lands in food and fiber production by effectively limiting encroachment of non-agricultural development, minimizing land use conflicts among incompatible uses and minimizing public service and facility costs normally associated with non-agricultural development.

The guiding principles of land in the Exclusive Agricultural District are as follows:

1. Consistency with the Town of Franklin Comprehensive Plan
2. If applicable, a license for any new Livestock Facility as required in Chapter 28 of the Manitowoc County Livestock Facility Licensing Ordinance.
3. Requirements of the state runoff law for farms (NR 151, Wis. Adm. Code, ATCP 50)
4. Compliance with standards contained in Chapter 91, Wisconsin Statutes to permit eligible landowner to receive tax credits for farming and includes lands currently cropped or pastured on NRCS soil capability classes 1, 2 and 3 that generally correspond with the Manitowoc County Agricultural Preservation Plan in effect.

5-32 PERMITTED PRINCIPAL USES AND STRUCTURES

Permitted uses in the Exclusive Agricultural District are as follows:

1. Agricultural Uses (as defined in 3-2), except the keeping of deer, elk, or bison for the purpose of meat production (see conditional use).
2. Accessory uses (as defined in 3-2)
3. Undeveloped natural resource and open space areas
4. A transportation, utility, communication, or other use that is required under state or federal law to be located in a specific place or that is authorized to be located in a specific place under a state or federal law that preempts the requirement of a conditional use permit for that use.
5. Other uses identified by DATCP rule.
6. Notwithstanding any provision in this ordinance to the contrary, a residence existing as of November 7, 1983, which does not conform to the requirements of paragraph 5-32, 2, may be continued as a nonconforming residential use. Such existing residence may be altered, repaired or rebuilt if destroyed, but is subject to setback, width and other dimensional requirements of the Exclusive Agricultural District.

5-33 CONDITIONAL USES

The following uses may be allowed in this district if reviewed and approved in accordance with standards in this ordinance (see Section 10 for regulations):

1. Agriculture related Uses (as defined in section 3-2)
2. Nonfarm Residence: A proposed new nonfarm residence or a proposal to convert a farm residence to a nonfarm residence through a change in occupancy is a

conditional use in the Exclusive Agricultural Zoning District provided all of the following apply:

- a. The ratio of nonfarm residential acreage to farm acreage on the base farm tract on which the residence is or will be located will not be greater than 1 to 20 after the residence is constructed or converted to a nonfarm residence.
 - b. There will not be more than 4 dwelling units in nonfarm residences, nor, for a new nonfarm residence, more than 5 dwelling units in residences of any kind, on the base farm tract after the residence is constructed or converted to a nonfarm residence.
 - c. The location and size of the proposed nonfarm residential parcel, and, for a new nonfarm residence, the location of the nonfarm residence on that nonfarm residential parcel, will not do any of the following:
 - I. Convert prime farmland from agricultural use or convert land previously used as cropland, other than a woodlot, from agricultural use if on the farm there is a reasonable alternative location or size for a nonfarm residential parcel or nonfarm residence.
 - II. Significantly impair or limit the current or future agricultural use of other protected farmland.
 - d. The applicant files a petition and pays a filing fee according to Chapter 10 of this Ordinance.
3. Prior Nonconforming Nonfarm Residence: A prior nonconforming nonfarm residence, or a prior nonconforming vacant parcel previously platted as a separate lot for the purpose of building a residence can be considered for a conditional use permit by the Town of Franklin when the public hearing is held to adopt this ordinance on January 12, 2011. At a later date, a property owner may petition for a conditional use, of a prior nonconforming residential use or parcel previously created, provided all of the following apply:
- a. Not convert prime farmland from agricultural use or convert land previously used as cropland, other than a woodlot, from agricultural use if on the farm there is a reasonable alternative location or size for a nonfarm residential parcel or nonfarm residence.
 - b. Not significantly impair or limit the current or future agricultural use of other protected farmland.
 - c. The applicant files a petition and pays a filing fee according to Chapter 10 of this Ordinance, or the Town of Franklin initiates its own action on a one-time basis.
4. Transportation, communications, pipeline, electric transmission, utility, or drainage uses if all the following apply:
- a. The use and its location are consistent with the purposes of the district.
 - b. The use and its location are reasonable and appropriate, considering alternative locations, or are specifically approved under state or federal law.
 - c. The use is reasonably designed to minimize conversion of land, at and around the site of the use, from agricultural use or open space use.

- d. The use does not substantially impair or limit the current or future agricultural use of surrounding parcels of land that are zoned for or legally restricted to agricultural use.
 - e. Construction damage to land remaining in agricultural use is minimized and repaired, to the extent feasible.
5. Governmental, institutional, religious, or nonprofit community uses if all of the following apply:
- a. The use and its location are consistent with the purposes of the Exclusive Agricultural Zoning District.
 - b. The use and its location are reasonable and appropriate, considering alternative locations, or are specifically approved under state or federal law.
 - c. The use is reasonably designed to minimize the conversion of land, at and around the site of the use, from agricultural use or open space use.
 - d. The use does not substantially impair or limit the current or future agricultural use of surrounding parcels of land that are zoned for or legally restricted to agricultural use.
 - e. Construction damage to land remaining in agricultural use is minimized and repaired, to the extent feasible.
6. Non-Metallic Mining Extraction, subject to the Manitowoc County Non-Metallic Mining Operations Ordinance (Chapter 21) and Chapter 91:46 (6) of the state statutes, which are as follows:
- a. The operation complies with subchapter I of ch. 295 and rules promulgated under that subchapter, with applicable provisions of the local ordinance under s. 295.13 or 295.14, and with any applicable requirements of the department of transportation concerning the restoration of nonmetallic mining sites.
 - b. The operation and its location in the Exclusive Agricultural Zoning District are consistent with the purposes of the Exclusive Agricultural Zoning District.
 - c. The operation and its location in the Exclusive Agricultural Zoning District are reasonable and appropriate, considering alternative locations outside the Exclusive Agricultural Zoning District, or are specifically approved under state or federal law.
 - d. The operation is reasonably designed to minimize the conversion of land around the extraction site from agricultural use or open space use.
 - e. The operation does not substantially impair or limit the current or future agricultural use of surrounding parcels of land that are zoned for or legally restricted to agricultural use.
 - f. The owner must restore the land to agricultural use, consistent with Chapter 21, Manitowoc Non-Metallic Mining Operations Ordinance mitigation requirements.

7. Other conditional uses as identified in the October 14, 2008 version of the Town of Franklin's Unified Development Ordinance:
 - a. Agricultural Research and Development, subject to requirements of s. 91.01(1) or 91.01(3).
 - b. Dog Kennels, provided it meets 91.01(1)(d) of the state statutes.
 - c. Deer, elk, or bison farms for the purpose of meat production, subject to requirements in s. 91.01(2)(a)2.
 - d. Commercial Riding Stable boarding 3 or more horses, subject to requirements of s. 91.01(1) or 91.01(3).
 - e. Any separation of farm residence or structure from the larger farm and parcel, provided all of the following apply, subject to conditional use permit standards for nonfarm residences under 5-34.2:
 - I. The separation is for the purpose of farm consolidation
 - II. The residence or structures existed prior to the adoption of the ordinance
 - III. The separated parcel is no larger than reasonably necessary to accommodate the proposed use.
 - f. The sale and service of machinery used in agricultural production, subject to requirements of s. 91.01(1) or 91.01(3).
 - g. Facilities used for centralized agricultural bulk collection and storage, subject to requirements of s. 91.01(1) or 91.01(3).
 - h. Distribution of agricultural products to wholesale and retail markets, subject to requirements of s. 91.01(1) or 91.01(3).
 - i. The storage and sale of seed, feed, fertilizer and other products essential to agricultural production, subject to requirements of s. 91.01(1) or 91.01(3).
 - j. Facilities used to provide veterinarian services for livestock, subject to requirements of s. 91.01(1).
 - k. Energy producing facilities in conjunction with a farm operation and utilizing farm products or by-products, subject to requirements of s. 91.01(1) or 91.01(3).
 - l. Wireless Communication Facilities but not radio or television communication towers, subject to requirements of s. 91.46(4).

5-34 DIMENSIONAL AND IMPROVEMENT REQUIREMENTS

1. **Minimum Lot Size:** The following conditions apply toward the minimum lot sizes for farm or nonfarm residence:
 - a. For a farm, the owner must have at least 10 acres.
 - b. By conditional use, the creation of a separate parcel for a new nonfarm residence or the conversion of a farm residence to a nonfarm residence shall be a minimum of one (1) acre.

2. Other dimensional regulations for residential structures:

- a. Front yard setback (See Definition section)
- b. Minimum lot width: 250 feet at the setback line. In the case of an existing "flag-lot", the minimum width on a public right-of-way is 30 feet, and the minimum lot width past the "pole" of the "flag-lot" must be at least 250 feet wide.
- c. Side yards: Minimum of 50 feet per side for a residence or barn, and 25 feet for a garage or shed.
- d. Rear yards: Minimum of 50 feet
- e. Maximum height : 35 feet

3. Livestock and other farm related building setbacks, according to the Manitowoc County Livestock Facility Licensing Ordinance (a. through c.):

- a. Livestock structures must be located a minimum of 100 feet from the property line or public right-of-way if the livestock facility will have 750 or more, but less than 1,000 animal units, 200 feet from the property line if the livestock facility will have 1,000 or more animal units, and 150 feet from a public road right-of-way if the livestock facility will have 1,000 or more animal units.
- b. Waste storage structures must be at least 350 feet from any property line or a public road right-of-way.
- c. A setback requirement for livestock facilities does not prevent the use or expansion of an existing livestock structure that is located within the setback area, provided the facility existed prior to the effective date of this ordinance (November 7, 1983). However, such nonconforming structure cannot be expanded closer to any property line or street setback line.
- d. Maximum height shall be 60 feet. Silos, grain elevators, and antennas shall be exempt from the height regulations.

5-35 OFF-STREET PARKING REQUIREMENTS

Two spaces for each residential dwelling unit. See Section 7-4 for other parking regulations.

5-36 OTHER REGULATIONS

Spreading liquid manure must be properly applied in the right conditions and in proper time intervals, as specified in the Manitowoc County Animal Waste Ordinance (Chapter 19). This ordinance is administered through the Manitowoc County Soil and Water Conservation Department (920-683-4183). The approved county application for manure spreading should be filed with the Town of Franklin Clerk, and available for public review at the Town Hall.

SECTION 5-4 AG GENERAL AGRICULTURAL

5-41 PURPOSE

To establish and preserve areas for agricultural, low density residential and outdoor recreation uses without permitting an intensity of development which would require the provision of urban facilities and services. Creation of a new parcel for the purpose of building a new residential structure in the AG district, after adoption of this ordinance, will be prohibited. A petitioner who wants to create a new residential parcel will need to rezone the land to residential classification.

5.42 PERMITTED PRINCIPAL USES AND STRUCTURES

1. Agricultural uses, as defined in Section 3-2
2. Feedlots shall not be located closer than 1,000 feet to an established residential district. And other agricultural uses which are not conducive to nearby urban development due to odor, noise, health considerations or other intrusions upon adjoining property
3. Single-family dwellings that exist at the adoption date of this ordinance, but no additional creation of lots to build new single family dwellings.

5.43 PERMITTED ACCESSORY USES

The following accessory uses are permitted if located on the same lot with the permitted use:

1. Signage (see 7-3 for regulations)
2. Customary home occupation or professional offices conducted by the resident only, provided that there be no external evidence of such use except an announcement or professional sign not exceeding 3 square feet in area.
3. Private garage and roadside stands for the sale of farm products.

5.44 CONDITIONAL USES

The following uses are permitted on issuance of a Conditional Use permit (Section 10).

1. Utility uses not requiring authorizations under s. 196.491 (3)
2. Horse Riding stables and equestrian trails for personal use, subject to a minimum of 2.5 acres of land for one horse, and an additional acre and a half for each additional horse.
3. Governmental uses such as fire stations, highway storage garage, sewage treatment plants, schools, parks, airports and landing strips.
4. Churches, schools, and cemeteries.
5. The sale and service of machinery used in agricultural production.
6. Manufactured homes.
7. Dog Kennels
8. Two family dwellings within existing residential structures only.

9. Communication Tower, Commercial

10. Non-metallic Mining (subject to Chapter 21, Manitowoc Non-Metallic Mining Operations Ordinance)

5-45 DIMENSIONAL REQUIREMENTS The following conditions apply toward the minimum lot sizes for a farm operation or residential home site:

1. Five (5) acres minimum acreage for agricultural purposes.
2. Legal conforming minimum lot area for one-family units must be two (2) to five (5) acres for parcels created prior to the adoption date of this ordinance, and five (5) acres or more for parcels created after the adoption date of this ordinance.
3. Minimum lot width: 250 feet minimum lot width at the setback line. In the case of an existing "flag-lot", the minimum width on a public right-of-way is 30 feet, and the minimum lot width past the "pole" of the "flag-lot" must be at least 250 feet wide.
4. Front yard setback (See Definition section)
5. Side Yards: Minimum of 50 feet per side for a residence or barn, and 25 feet for a garage or shed.
6. Rear Yards: Minimum of 50 feet
7. Maximum height for a residential structure: 35 feet.
8. Maximum height for a farm structure: 60 feet.
9. Silos, grain elevators, towers and antennas are exempt from height regulations.

6-46 OFF-STREET PARKING REQUIREMENTS

Two spaces for each residential dwelling unit. See Section 7-4 for other parking regulations.

SECTION 5-5 C-E COUNTRY ESTATES DISTRICT

5-51 PURPOSE

The Country Estates District is intended for large lot single-family rural lots, along with compatible home occupations and low-intensity agricultural uses. This zoning classification would be appropriate for single-family lots, created previous to adoption of this ordinance, but were not part of a subdivision. Parcels created after adoption of this ordinance must be platted as a Certified Survey Mapped lot and shown as "Residential" on the Franklin Land Use Plan.

5.52 PERMITTED PRINCIPAL USES AND STRUCTURES

1. Single-family dwellings
2. Small "hobby farm" agricultural operations including a garden, nursery, greenhouse and usual farm buildings, subject to the following restrictions:
 - a. No building in which farm animals are kept shall be closer than 500 feet to any adjoining lot line.
 - b. No storage of manure or odor or dust-producing substance or use shall be permitted within 500 feet of any adjoining lot line.
 - c. No greenhouse heating plant shall be operated within 100 feet of any adjoining lot line.

5.53 PERMITTED ACCESSORY USES

The following accessory uses are permitted if located on the same lot with the permitted use:

1. Customary home occupation or professional offices conducted by the resident only, provided that there be no external evidence of such use except an announcement or professional sign not exceeding 3 square feet in area.

5.54 CONDITIONAL USES

The following uses are permitted on issuance of a Conditional Use permit (Section 10).

1. Utility uses not requiring authorizations under SS 196.491 (3)
2. Horse Riding stables and equestrian trails for personal use, subject to a minimum of 2.5 acres of land for one horse, and an additional acre and a half for each additional horse.
3. Dog Kennels

5.55 DIMENSIONAL REQUIREMENTS

1. Residential Structures:
 - a. Legal conforming minimum lot area for one-family units or existing platted lots must be five (5) acres or more for parcels created after the adoption date of this ordinance.
 - b. Minimum lot width: 250 feet
 - c. Front yard setback (See Definition section)
 - d. Side Yards: Minimum of 50 feet per side for a residence or barn, and 25 feet for a garage or shed
 - e. Rear Yards: Minimum of 50 feet
 - f. Maximum height for a residential structure: 35 feet

5-56 OFF-STREET PARKING REQUIREMENTS

Two spaces for each residential dwelling unit. See Section 7-4 for other parking regulations.

SECTION 5-6 R-1 RURAL RESIDENTIAL DISTRICT

5-61 PURPOSE

This district is intended to provide for areas of the Town where non-agricultural uses and development can be established or maintained. This district includes existing residential development in the areas of Taus, Menchalville, the west edge of Kellnersville, or other areas having a concentration of residential development, and any area shown on the Franklin Land Use Plan classified as "Residential Expansion". New residential subdivisions (5 or more lots) in "Residential Expansion" areas must follow the Conservation Subdivision provision of this ordinance (13-15), or if less than five lots, submit a Certified Survey Map.

5.62 PERMITTED PRINCIPAL USES AND STRUCTURES

1. Single-family dwellings.
2. Churches, public schools, parks, playgrounds, and recreational areas, private elementary and high schools, cemeteries and public utilities.

5.63 PERMITTED ACCESSORY USES

The following accessory uses are permitted if located on the same lot with the permitted use:

1. Signage (see 7-3 for regulations)
2. Customary home occupations or professional offices conducted by the resident only, provided that there be no external evidence of such use except an announcement or professional sign not over three square feet in area.
3. Other customary accessory uses and buildings, provided such uses are clearly incidental to the principal use and do not include any activity commonly conducted as a business.

5.64 CONDITIONAL USES

The following uses are permitted on issuance of a Conditional Use permit (Section 10).

1. Retirement housing projects.
2. Two-family dwellings.

5.65 DIMENSIONAL REQUIREMENTS

1. Minimum lot area is one (1) acre for all lots created prior to adoption of this ordinance, and two (2) acres for lots created after adoption of this ordinance.
2. Minimum lot width shall be 150 feet
3. Front yard setback (See Definition section)
4. Side Yards: Minimum of 20 feet per side
5. Rear Yards: Minimum of 25 feet.
6. Maximum height for a residential structure shall be 35 feet

5-66 OFF-STREET PARKING REQUIREMENTS

Two spaces for each residential dwelling unit. See Section 7-4 for other parking regulations.

SECTION 5-7 C-I GENERAL COMMERCIAL-INDUSTRIAL DISTRICT**5-71 PURPOSE**

To preserve designated areas in the Town where commercial and industrial uses presently exist and to establish suitable land areas where future commercial and light industrial development may occur and be compatible with surrounding and neighboring land uses.

5.72 PERMITTED PRINCIPAL USES AND STRUCTURES

1. Offices, public buildings, fire stations, and clinics.
2. Personal and general service establishments including banks, barbers, beauty shops, insurance offices, hardware stores, taverns, repair shops and other uses of a similar nature.
3. Wholesale, warehouse and building material supply establishments.
4. Agriculture-related businesses such as farm implement dealers, farm co-ops, feed mills and other uses of a similar nature.
5. Automobile repair shops, service stations, and convenience-gas stations.
6. Automobile, boat, manufactured home and construction equipment dealers, and other retail sales and service facilities.
7. Veterinary hospitals.
8. Light manufacturing including bottling, packaging, laboratories, and other uses of a similar nature.
9. Assembling of materials and products provided that all work is performed within an enclosed structure.

5-73 PERMITTED ACCESSORY USES AND STRUCTURES

1. Signage (see 7-3 for regulations)
2. Uses and structures customarily and clearly incidental to permissible principal uses and structures.

5-74 CONDITIONAL USES

The following uses are permitted on issuance of a Conditional Use permit (Section 10).

1. Public utility installations
2. Automobile wrecking yards, salvage yards or junk yards
3. Communication Tower, Commercial

5-75 DIMENSIONAL REQUIREMENTS

1. Minimum lot area shall be 1 acre
2. Minimum lot width shall be 200 feet
3. Front yard setback (See Definition section)

4. Side Yards-Minimum of 35 feet per side
5. Rear Yards-Minimum of 35 feet
6. Maximum height for a business or commercial structure shall be 45 feet. Maximum height for a manufacturing or industrial structure shall be 60 feet.

5-76 OFF-STREET PARKING REQUIREMENTS

See Section 7-4 for parking regulations.

SECTION 5-8 LF LANDFILL OVERLAY DISTRICT

5-81 PURPOSE

The purpose of this district is to provide a means of properly regulating and reclaiming landfill sites which are located primarily by their geological characteristics rather than to a planning and zoning process. The Landfill District is only allowed to overlay the General Agricultural District.

5-82 PERMITTED USES

Sanitary landfill sites that are presently in existence.

5-83 BASIC DISTRICT STANDARDS

LF District standards are based on the underlying district, unless more restrictive standards are established in a Conditional Use Approval. Also, excavations or fill areas within 200 feet from any right-of-way or property line shall not be permitted unless the Plan Commission recommends and Town Board determines that the operational plans adequately provide for:

1. Safety of abutting land uses and for safe ingress to, egress from and traffic flow past the site.
2. Aesthetic screening from abutting properties.
3. Dust and debris control from the operation.
4. Staging of the operation to produce a minimal time frame between commencing of operations and restoration within this 200 foot area.

The Conditional Use Permit shall be in effect for a period not to exceed two (2) years and may be renewed upon application for a period not to exceed two (2) years. Modifications or additional conditions may be imposed upon application for renewal.

5.84 OPERATIONAL REQUIREMENTS

1. All designated and licensed landfill operations in the Town shall be fenced with approved fencing material or other suitable barrier material for the protection of the public and adjoining land owners.
2. Machinery, roads, and equipment used in the landfill operation shall be constructed, maintained and operated in such a manner as to minimize dust, noise and vibration and debris.
3. Planting of trees and shrubs and other appropriate landscaping shall be provided where deemed necessary by the Plan Commission.
4. Hours of operation may be established.

5.85 RESTORATIVE REQUIREMENTS

The owner or operator shall prior to the issuance of a permit submit to the Plan Commission a plan for such restoration in the form of the following:

1. A physical restoration plan showing the proposed contours after restoration, (no greater than five (5) foot intervals) plantings and other special features of restoration, and the method by which such restoration is to be accomplished.
2. A bond, certified check, or other financial guarantee in an amount sufficient to secure the performance of the restoration agreement. Restoration shall proceed as soon as practical after exhaustion of the site.

3. At any stage during the restoration the plan may be modified by mutual agreement between Town and the owner or the operator. When there is any backfilling with material other than soil, all material used and method of filling shall have prior DNR approval. In any case, the finished grade of the restored area except for rock faces, outcroppings, water bodies, or areas of proposed buildings or paving construction, shall be of sufficient depth of earth to support plant growth.
4. Within one year after the cessation of the operation, all temporary structures (excepting fences), equipment, stock piles, rubble heaps, or other debris shall be removed or backfilled into the landfill so as to leave the premise in a neat and orderly condition.

5-86 EXISTING OPERATIONS

Any issues (other than zoning issues) between the Town and Landfill operator must be brought before the Town of Franklin Landfill Committee. This committee, which came into being when the contract was signed with the present landfill operator, oversees operational aspects and makes recommendations to the Town Board for their action.

5-87 CONDITIONAL USES

The following uses are permitted on issuance of a Conditional Use permit (Section 10).

1. Extension of a legally existing landfill site operation.
2. New landfills, solid waste management facilities, recycling centers, and soil extraction or scraping for purposes of obtaining fill material for such large scale operations as landfill sealing.

5.88 OFF-STREET PARKING REQUIREMENTS

See Section 7-4 for other parking regulations.

SECTION 5-9 CON CONSERVANCY DISTRICT**5-91 PURPOSE**

The purpose of this district is to provide designated areas in the Town where the enhancement and preservation of significant natural resource areas will be maintained. This district will contain designated wetland areas, wildlife habitat areas in the form of food and cover; and other low-lying land areas adjacent to county designated flood plains for additional water storage.

5-92 PERMITTED PRINCIPAL USES AND STRUCTURES

1. Grazing and the raising of crops, harvesting of wild crops, hunting, fishing and trapping and forestry
2. Non-residential buildings and structures used for the raising of wildlife and fish and the practice of forestry
3. Boat launching areas, boat liveries and sale of bait
4. Public parks and recreational areas

5-93 PERMITTED ACCESSORY USES

1. Signage (see 7-3 for regulations)
2. Uses customary and incidental to the permitted principal uses and structures

5-94 CONDITIONAL USES

The following uses are permitted on issuance of a Conditional Use permit (Section 10).

1. Camps and campgrounds
2. Commercial recreational areas, golf courses, and customary accessory uses

5-95 DIMENSIONAL REQUIREMENTS

1. Minimum lot area shall be 1 acre. Minimum lot width shall be 200 feet
2. Front yard setback (See Definition section)
3. Side Yards: Minimum of 25 feet per side
4. Rear Yards: Minimum of 25 feet
5. Maximum height for any structure shall not exceed 35 feet

5-96 OFF-STREET PARKING

See Section 7-4 for other parking regulations.

TABLE 2
Lot Size/Area Requirements

Zoning Category	Lot Width	Lot Area	Building Height	Street Setback	Rear Setback	Side Setback
EAG	250'	10 Acres	Res-35' Farm-60'	100'/Centerline 25'/ ROW L.*	50'	50'/25'
AG	250'	5 Acres	Res-35' Farm-60'	100'/Centerline 25'/ ROW L.*	50'	50'/25'
C-E	250'	5 Acres	35'	100'/Centerline 25'/ ROW L.*	50'	50'/25'
R-1	150'	2 Acres	35'	60'/Centerline 25'/ ROW L.*	25'	25'
C I	200'	1 Acre	Com-45' Ind-60'	60'/Centerline 25'/ ROW L.*	35'	35'
L F	—	—	—	60'/Centerline 25'/ ROW L.*	—	—
CON	200'	1 Acre	35'	60'/Centerline 25'/ ROW L.*	25'	25'

*Generally setbacks with more restrictive Town standards are as follows:

1. Town Road (Class 1) is 60' from centerline but not less than 25' from right-of-way line.
2. County or State Road (Class 2 & 3) is 100' from centerline but not less than 25' from right-of-way line.
3. Class 4 Road and setback requirements at site triangle apply to lots at intersections (see Chapter 10 of the Manitowoc Setback Ordinance for details).

SECTION 6 SUPPLEMENTARY DISTRICT REGULATIONS

6-1 General Application

The regulations set forth herein shall supplement or modify the regulations set forth in Section 5 Schedule of District Regulations.

6-2 Lots and Yards

1. **More than One Building on a Lot.** In any district, more than one building housing a principal use may be erected on a single lot provided that yard and other requirements of this ordinance shall be met for each building as though it were on an individual lot.
2. **Through Lots.** On through or lots with double frontage, the required front yard shall be provided on each street. On corner lots the street side yard shall equal the required front yard for lots fronting on that street.
3. **Development in Mapped Streets.** Where an official line has been established for the future widening or opening of a street, the depth of a front yard or the width of a side yard shall be measured from such official line to the nearest line of the building.
4. **Access.** Every building housing a principal use hereafter erected or moved shall be on a lot with direct access to a public or Private Street and all such buildings shall be so located as to provide safe and convenient access for the servicing and off-street parking.
5. **Building Groups.** In any non-residential district a group of buildings separated only by common or party walls shall be considered as one building.

6-3 Accessory Uses and Structures

1. **Attached Accessory Buildings.** All accessory buildings which are attached to the principal buildings shall comply with the yard requirements of the principal building.
2. **Detached Accessory Buildings.** No detached accessory building shall occupy any portion of the required front or side yard in any district where the principal use is residential. No detached accessory building or buildings shall occupy more than 25 percent of the required rear yard or be located within eight feet of any lot line.
3. **Corner Visibility.** On any corner residential lot, nothing shall be erected, planted or allowed to grow within 30 feet of the street line that will obscure visibility over the height of two and one half feet above the street grade.

6-4 Height

The height limitations contained in Section 5 do not apply to belfries, cupolas, antennas, water tanks, elevator bulkheads, chimneys, spires, flagpoles or other appurtenances usually required to be placed above the roof level and not intended for human occupancy.

6-5 Landscaped Buffer

The use of properly planted and maintained buffer areas may reduce and ease potential incompatibility between or among different uses of land in proximity to each other.

6-51 Requirements

Where these zoning regulations require a landscaped buffer area, the following landscaped buffer requirements shall be met:

1. The landscaped buffer area shall not be less than six feet in width measured at right angles to property lines and shall be established along the entire length of and contiguous to the designated property line or lines.
2. The area shall be so designed, planted and maintained as to be seventy-five percent or more opaque between two and six feet above average ground level when viewed horizontally.
3. Types and numbers of planting for landscaped buffers shall be submitted with application for a building permit or Conditional Use, along with plans and statements demonstrating how the buffer will be maintained in the future.
4. Plantings shall be of a size and type which will insure the meeting of the seventy-five percent capacity requirement within no longer than twelve months of the date of first planting.
5. Failure to maintain the landscaped buffer area as set out above shall be a violation of these zoning regulations.

6-52 Substitution for Landscaped Buffer Area

Except when otherwise specifically provided by these regulations, a six foot high opaque structure set in a five foot wide landscaped buffer area may be substituted for the six foot high planted buffer above. If such opaque structure is of non-living material, for each ten feet thereof, an average of one shrub or vine shall be planted abutting such barrier but need not be spaced ten feet apart. Such shrubs or vines shall be planted along the outside of such barrier unless they are of sufficient height to the time of planting to be readily visible over the top of such barrier. The remainder of the required landscaped areas shall be landscaped with grass, ground cover or other landscaping.

6-53 Sight Distance

When an accessory intersects a public right-of-way, all landscaping or structures shall provide unobstructed cross visibility at a level between two and one half to six feet.

6-6 Manufactured Home Requirements

A manufactured home moved into the Town of Franklin following the adoption date of this ordinance must meet the following requirements:

1. That the manufactured home is secured to a full basement or other permanent enclosed foundation that meets all applicable state building codes, having not more than 12 inches of exposed concrete foundation above the exterior finished grade of the lot. An exception is when the grade of the lot slopes, in which case only that portion of the foundation which is on the highest point of the lot must meet the requirements of this paragraph.
2. Minimum structure width (i.e. short side) shall be at least twenty-five (25) feet. Attached garages, carports and open decks shall not be included in the measurement of the width of the dwelling.
3. The structure shall have a minimum of a 4/12 pitched roof on a minimum of seventy-five (75) percent of the structure.

SECTION 7 SPECIAL PROVISIONS

7-1 Applicability

Regulations for uses and structures specified in this Section shall apply to such uses and structures whether permitted by "right" or permissible by Conditional Use in any district. Applications for a Conditional Use shall be submitted and reviewed by the Plan Commission and Town Board as specified in Section 10.

7-3 Signs

7-31 Purpose and Intent of Sign Regulations

The intent of this regulation is to provide for and regulate the location and safe construction of signs in a manner to ensure that signs are compatible with surrounding land uses, are well maintained and express the identity of individual proprietors and the Town as a whole.

7-32 Compliance

No sign shall hereafter be located, erected, moved, reconstructed, extended, enlarged, converted or structurally altered without conforming to the provisions of this Unified Development Ordinance.

7-33 Signs not included in the application of sign code regulations

1. Signs not exceeding one-square foot in area and bearing only property numbers, postbox numbers, names of occupants of the premises, or other identification not having commercial connotations.
2. Flags and insignia of any government except when displayed in connection with a commercial promotion.
3. Legal notices, identification, informational, or directional signs erected or required by government agencies.
4. Integral or architectural features of buildings except letter, trademarks, moving parts or moving lights.
5. Signs directing or guiding traffic and parking on private property, but bearing no advertisement matter and not exceeding nine square feet in area.
6. Temporary paper signs advertising a cultural or civic matter within thirty days of such an event.

7-34 Signs Permitted in All Districts without a Permit

The following signs are permitted in all zoning districts without a permit, subject to the following regulations:

1. One temporary sign for each street frontage advertising the sale or lease of real estate provided such sign is limited to 9 sq. ft. per side in area, and one temporary sign advertising the development of property and limited to 50 sq. ft. per side in area. No temporary sign shall be erected within 10 feet of any adjacent side yard and no temporary sign shall remain after the sale, lease or development of the property.
2. Home occupation and professional home office signs not to exceed two (2) square feet in area.

3. Election campaign signs are limited to 10 sq. ft. in area. The erector of such a sign shall obtain permission from the property owner, renter or lessee, provided that such sign shall not be erected prior to the first day of the "election campaign period" as defined in Sec. 12.04 of the Wisconsin Statutes and shall be removed within four (4) days following the election.
4. Rummage sale and garage sale signs, provided that no such signs shall be erected or placed within a public right-of-way and further provided that such signs are removed within twenty-four (24) hours following the sale.
5. Bulletin boards for public, charitable or religious institutions not to exceed thirty-two (32) square feet in area located on the premises.
6. Memorial signs, tablets, names of buildings and date of erection when cut into any masonry surface or when constructed of metal and affixed flat against a structure.
7. Official signs, such as traffic control, parking restrictions, information and notices.

7-35 Signs Permitted in All Residential Districts

The following signs are permitted in any residential district and are subject to the following regulations:

1. One subdivision identification sign limited to 25 square feet per side. Such a sign shall not exceed 8 feet in height.
2. In connection with any public or semi-public institution, the following signs are permitted: one identification sign limited to 20 sq. ft., one bulletin board limited to 15 sq. ft. and not more than two temporary signs or banners limited to a combined area of 20 sq. ft. in connection with special events, provided that no such sign or banner shall be displayed for a period of more than two weeks.
3. One subdivision identification sign limited to 25 square feet per side. Such a sign shall not exceed 8 feet in height, shall have a minimum ten (10) feet side yard, and shall not be located in a road right-of-way.
4. Temporary development signs for the purpose of designating a new building or development or for the promotion of a subdivision may be permitted for a limited period of time, provided that the sign shall not exceed forty-eight (48) square feet in area, shall have a minimum ten (10) feet side yard, and shall not be located in a road right-of-way. The Plan Commission shall specify the period of time the sign may remain based on the size of the development, allowing a reasonable time to market the development.
5. Signs shall not be closer than 300 feet from the point of intersection of the right-of-way lines of any intersecting roads.
6. No sign in a residential district shall exceed eight (8) feet in height or produce artificial light from within.
7. No illumination sign shall be permitted within 50 feet of any residence, unless such sign is so designed that it does not shine or reflect light onto such residence.

7-36 Signs Permitted in All Agricultural Districts

The following signs may be permitted in all Agricultural Districts and are subject to the following regulations:

1. Signs displaying the name of the farm, owner, and farm organization or advertising the products produced on the premises shall not exceed fifteen (15) feet in height above the ground surface, shall have a minimum ten (10) feet side yard, shall not be located in a road right-of-way, and shall not exceed 32 square feet in area. A maximum of two (2) signs will be allowed, with one sign being a free-standing unit.
2. Wall signs affixed to or painted on farm buildings advertising farm products produced on and/or sold on the premises or displaying the owner's name shall not exceed One Hundred-Fifty (150) square feet.
3. Directional signs indicating the name of a business or other establishment and the direction and distance to the establishment. No directional sign shall be placed within the road right-of-way or within the vision clearance triangle of any intersecting roads. No directional sign shall exceed twelve (12) square feet in area.
4. Signs shall not be closer than 300 feet from the point of intersection of the right-of-way lines of any intersecting roads.

7-37 Signs Permitted in Commercial-Industrial District

The following signs may be permitted in the Commercial / Industrial District, subject to the following restrictions:

1. A maximum of two (2) signs allowed per principal use
2. One (1) free standing sign will be allowed with the following provision
 - a. Maximum height-30 feet
 - b. Maximum area-50 sq. ft. per side
 - c. Wall signs shall not exceed 20 feet in height and have a maximum area of 150 square feet.
 - d. Roof signs are prohibited.
3. Wall signs placed against the exterior walls of buildings shall not extend more than twelve (12) inches outside of a building's wall surface, shall not exceed one-hundred-fifty (150) square feet in area for any one (1) premise and shall not extend above the roof line of the building.
4. Projecting signs (including marquee, awning or canopy signs) fastened to, suspended from or supported by structures shall not exceed twenty (20) square feet in area for any one (1) premises, shall not extend more than six (6) feet into any required yard, shall not extend more than three (3) feet into any public right-of-way, shall not be less than ten (10) feet from all side lot lines, shall not exceed a height of twenty (20) feet above the mean centerline street grade, shall have a minimum ten (10) foot side yard, shall not be located in a road right-of-way, and shall not be less than ten (10) feet above the sidewalk nor fifteen (15) feet above a driveway or an alley.

5. Temporary window signs advertising a sale or special event at an individual commercial establishment shall be exempt from the sign regulations of this ordinance.

7-38 Signs Permitted in a Conservancy District

Signs are permitted in the Conservancy District, subject to the following restrictions:

1. A maximum of two signs per lot
2. Height not to exceed 10 feet
3. Sign area not to exceed 32 square feet

7-39 Portable Signs

The Zoning Administrator/Building Inspector may permit the temporary use of a portable sign for advertising purposes in any district, provided that the portable sign will not be located on any public right-of-way, will not be located closer than ten (10) feet to an adjacent property and will not cause a hazard to traffic or adjoining properties. Such signs shall not be displayed more frequently than five (5) times per calendar year, and not more than thirty (30) days at a time.

7-391 Lighting and Color

No sign shall be erected or maintained at any location where, by reason of its position, working, illumination, size, shape, or color it may obstruct, impair, or interfere with traffic visibility, nor be lighted in such a way as to cause glare or impair driver visibility upon public ways, or be confused with any authorized traffic control sign, signal or device.

Signs may be illuminated but non-flashing. Signs shall not be revolving or animated; however, copy on time and temperature devices may be cyclical. Signs in residential districts may be illuminated only with Plan Commission approval.

7-392 Measuring Signs

In calculating the area of a sign to determine whether it meets the requirement of this Unified Development Ordinance, the Zoning Administrator shall include the sign copy and any border or frame surrounding that copy. Supporting members of a sign shall be excluded from the area calculation. Area of irregularly shaped signs or signs containing two (2) or more detached elements shall be determined by the area of the smallest regular polygon that will encompass all elements of the sign.

7-4 Off-Street Parking

7-41 Purpose

The intent of this section is to prevent or alleviate the congestion of the public streets and promote the safety and welfare of the public by establishing minimum requirements for off-street parking and loading according to the use of the property, and to promote safety and convenience for people by requiring that parking areas and driveways be located and constructed according to good standards for visibility, accessibility and safety. It is the responsibility of property owners to provide adequate parking to meet their specific needs.

7-42 Applicability

All uses hereafter established, expanded, changed in use to create a need for ten percent (10%) greater parking capacity, reduced in size, or alteration to existing surfaces shall provide off-street parking and loading space in accordance with the standards set forth in this section. Alteration means adding asphalt or concrete to a gravel parking lot or parking space or

removing asphalt or concrete from a parking lot or parking space and exposing the gravel base course and repaving of such area.

7-43 Permit application

Applications to construct or pave a parking lot or parking space shall be submitted to the Zoning Administrator.

7-44 Permit fees

The parking lot or driveway permit fee shall be established from time to time by action of the Town Board, along with penalties for failure to obtain the necessary permits prior to starting construction.

7-45 Size of parking stalls

The minimum size standards for off-street parking spaces shall be 9' by 18' or 162 sq. ft. (not including aisle-way width). Parking spaces shall be designed at 90 degrees, with a minimum aisle width of 26'.

7-46 Parking space for handicapped

Any parking area to be used by the general public shall provide parking spaces designated and located to adequately accommodate the handicapped, and these shall be clearly marked as such. Handicapped stalls shall be located in close proximity to the principal entrance(s). Parking spaces shall be designed in accordance with the state and federal building code and, as a minimum, shall meet the Federal ADA standards. Handicap ramp slopes shall not exceed 1:12.

7-47 Design standards

All parking lot development or expansion of existing parking lots that need to accommodate more than ten (10) parking stalls shall be subject to development plan design standards as identified below:

1. **Drainage** All parking areas shall provide for proper drainage of surface water to prevent the drainage of such water onto adjacent properties. On-site storm drainage shall be provided in accordance with the State Plumbing Code.
2. **Protection Devices** Barriers, curbing, or wheel stops shall be installed and so located as to prevent any portion of a vehicle from projecting beyond property lines, into any landscaping and screening, or into a pedestrian space. Such barriers, curbs or wheel stops shall be constructed and anchored to prevent their dislocation.
3. **Surface areas** Parking areas, including stalls and access ways, shall be either concrete or asphalt. Parking areas designed solely for semi-truck traffic and parking may provide a gravel surface under the following conditions:
 - a. The entrance must be asphalt or concrete for at least the first twenty-five (25) feet from the right-of-way.
 - b. The loading area must be asphalt or concrete.
 - c. The gravel must be periodically graded and maintained in a dust free manner, free of debris, weeds and other plant materials.
 - d. The street adjoining the driveway must be free of gravel from the parking lot.

7-48 Maintenance

1. **Parking Lot Conditions.** The owner of property used for off-street parking shall maintain such area in good condition without holes and free of all weeds, standing water, trash, abandoned or junk vehicles and other debris.
2. **Lighting.** Parking lot and loading space lighting fixtures shall be of a full cut-off type to avoid light spilling over onto adjacent residentially zoned properties and public rights-of-way.
3. **Striping.** All parking areas shall be striped to delineate parking stall locations.
4. **Maneuvering.** All parking and loading spaces shall be designed to provide safe maneuvering to occur within the property line.
5. **Snow storage.** Snow storage must be provided on-site, or a letter from the owner of the property to the Town stating the method to remove the snow from the site in a timely fashion.

7-49 Parking Spaces

Table 3 identifies minimum parking stalls by land use:

TABLE 3
OFF-STREET PARKING REQUIREMENTS (per usable floor area*)

Land Use	Spaces Required	Per
Residential	2	Housing unit
Churches	1	Per 3 fixed seats
Schools	1	Per employee and 1 for each 10 students
Retirement facilities:	1	For each housing unit plus 1 additional space per employee per shift.
Retail and personal service	1	200 sq. ft.
Tavern, restaurant or recreational	1	100 sq. ft
Offices, public buildings and clinics	1	200 sq. ft
Manufacturing and industrial facilities	1	Each employee on Maximum shift

*Useable floor area excludes hallways, bathrooms, utility or storage areas, and any areas not accessible to the public (i.e. kitchen area of a restaurant).

7-5 Wireless Communication Facilities

See Chapter 20, Manitowoc County Wireless Communications Facilities, for regulation of cell towers and other wireless communication related facilities. This chapter of Manitowoc County Ordinances is incorporated into this ordinance by reference as if fully set forth therein.

7-6 Non-Metallic Mining Operations (Quarries)

See Chapter 21, Manitowoc County Nonmetallic Mining Operations Ordinance for regulation of quarries, sandpits, and other nonmetallic mining operations. This chapter of Manitowoc County Ordinances is incorporated into this ordinance by reference as if fully set forth therein.

SECTION 8 ENFORCEMENT, REMEDIES, AND PENALTIES

8-1 Zoning Administrator – Duties and Powers

The provisions of this ordinance shall be administered by the Zoning Administrator who shall be appointed by the Town Board Chairman and confirmed by the Town Board. The Zoning Administrator shall:

1. Examine all applications for zoning permits and approve such permits only where there is compliance with the provisions of this ordinance.
2. Conduct inspections to determine compliance or non-compliance with the provisions of this ordinance.
3. Issue stop, cease, and desist orders, and orders requiring the correction of all conditions found to be in violation of the provisions of this ordinance. Such written orders shall be served personally or by certified mail upon persons deemed by the Zoning Administrator to be violating the provisions of this ordinance. It shall be unlawful for any persons to violate any such order issued by the Zoning Administrator.
4. With approval of the Town Board, or when directed by them, institute in the name of the Town any appropriate action or proceedings to prevent any violation of this ordinance.
5. Revoke by order any zoning permit approved under a misstatement of fact or contrary to the law or provisions of this ordinance.
6. Maintain a map or maps of all nonconformities and Conditional Uses and maintain a file on each.
7. Upon request of the Town Board, Town Board Chairman, Plan Commission, or Board of Appeals, present to such persons or bodies facts, records, or reports which they may request to assist them in making decisions, or assist them in any other way as requested.

8-2 Enforcement – Town Attorney

1. This Ordinance shall be enforced by the Town Attorney under the direction of the Town Board.
2. When violations of this Ordinance occur, the Town Board shall make complaint to the Town Attorney who shall then be responsible for the necessary enforcement action.

8-3 Remedies

In the event any building or structure is or is proposed to be erected, constructed, reconstructed, altered, converted or maintained; or any building, structure or land is or is proposed to be used in violation of this ordinance, the appropriate authorities of the Town of Franklin, or any person aggrieved by such violation may, in addition to other remedies, institute appropriate action or proceedings to prevent, restrain, correct or abate such violation; to prevent the occupancy of said building, structure or land; or to prevent any illegal act, conduct of business or use in or about such premises.

8-4 Penalties

Any person who violates any provisions of this ordinance or any order, rule or regulations made hereunder shall, upon conviction, be fined not less than twenty-five dollars (\$25), nor more than five hundred dollars (\$500) for each offense, together with the costs of prosecution, and in default of payment of such fines and costs of prosecution, shall be imprisoned in the County Jail until such fine and forfeitures are paid, but not to exceed thirty (30) days. Whenever a person shall have been notified in writing by the Zoning Administrator that he is in violation of the provisions of this ordinance such person shall commence correction of all violations within seven days after notice, and shall correct all violations within 30 days after notice. If corrections are not commenced within seven days of written notice or not corrected within 30 days of written notice, each day that a violation continues shall be considered a separate offence.

SECTION 9 PLAN COMMISSION

9-1 Plan Commission

The Plan Commission has the responsibility for recommending land use changes consistent with the regulations in this ordinance and correctly interpret the goals, objectives and intent of the Town of Franklin's Comprehensive Plan

9-2 Membership and Terms of Office

9-21 The Plan Commission consists of two (2) members of the Town Board, who may be the Town Board Chairperson, and five (5) citizen members, who are not otherwise Town officials, and who shall be persons of recognized experience and qualifications. The Town Board Chairperson shall appoint the members of the Plan Commission and designate a Plan Commission Chairperson during the Month of April to fill any expiring term. The Town Board Chairperson may appoint himself or herself or another town board member to the Plan Commission and may designate himself or herself, the other Town Board member, or a citizen member as Chairperson of the Plan Commission. (All appointments are subject to the advisory approval of the Town Board.) In a year in which any Town Board member is elected at the spring election, any appointment or designation by the Town Chairperson shall be made after the election and qualification of the Town Board members elected. Any citizen appointed to the Plan Commission shall take and file the oath of office within (5) days of notice of appointment, as provided under secs.19.01 and 60.31, Wis. Stats.

9-22 The term of office for the Plan Commission Chairperson and each Commission member shall be for a period of 3 years, ending on April 30, or until a successor is appointed and qualified, except:

1. Initial Terms If the initial appointments to the Plan commission are made during April, five citizen members shall be appointed for staggered terms as follows: one (1) person for a term that expires in one (1) year; two (2) persons for a term that expires in two (2) years; and two (2) persons for a term that expires in three (3) years.
2. If the initial appointments are made after April, the first citizens appointed to the Plan Commission shall be appointed for staggered terms as follows: one (1) person for a term that expires in one (1) year from the previous April 30; two (2) persons for terms that expire two (2) years from the previous April 30; two (2) persons for a term that expires three (3) years from the previous April 30.

9-3 General & Miscellaneous Powers

The Plan Commission shall:

1. Be governed by the provisions of Section 62.23(7) of the Wisconsin Statutes, the Unified Development Ordinance of the Town of Franklin and function and duty as set forth herein; The Plan Commission's function and duty herein established shall not be changed or waived without the affirmative vote of four members of the Plan Commission and the concurrence of the Town Board.
2. Initiate, hear, review and offer its recommendations to the Town Board on applications for amendments to this chapter.

3. Prepare and recommend to the Town Board for adoption of a Comprehensive Plan for the Town, and from time to time to recommend amendments as it may deem appropriate.
4. Be enabled to promote Town planning.
5. Hear, review and offer its recommendations to the Town Board on applications for conditional use permits, subdivisions, street vacations and name changes, and other matters.
6. Make reports and recommendations, (per sec. 62.23(4)), relating to the plan and development of the Town to the Town Board, other public bodies, citizens, public utilities and organizations.
7. Recommend to the Town Board programs for public improvements and the financing of such improvements.
8. Receive from public officials, within reasonable time, requested available information required for the Commission to do its work.
9. For itself, its members and employees, in the performance of their duties, enter upon land, make examinations and surveys, and place and maintain necessary monuments and marks thereon. However, entry shall not be made upon private land, except to the extent that the private land is held open to the general public, without the permission of the landowner or tenant. If such permission has been refused, entry shall be made under the authority of an inspection warrant issued for cause under sec. 66.0119, Wis. Stats., or other court-issued warrant.

9-4 Town Comprehensive Planning Authority & Requirements

1. The Plan Commission, under sec. 62.23(2), recommended adoption of the Town of Franklin Comprehensive Plan. On May 15, 2007, the Town Board adopted said Plan, along with accompanying maps, tables and descriptive and explanatory matter, which includes the nine (9) elements specified under the comprehensive planning law, sec. 66.1001 (2), Wis. Stats.
2. The Plan Commission will be responsible for reviewing and updating the Comprehensive Plan on a periodic basis to maintain relevancy to land use issues that may occur over time.
3. The Plan Commission will determine if every petitioned land use change applied for through the provisions of this ordinance is consistent with the adopted Comprehensive Plan.

SECTION 10 CONDITIONAL USE PERMITS

10-1 Authority

The Town Board, by an affirmative two-thirds (2/3) vote of the entire Board, may by resolution, approve the issuance of a Conditional Use permit for uses listed as Conditional Uses in this ordinance.

10-2 Purpose

Conditional Uses are those uses having some uniqueness or unusual impact which requires a careful review of their location, design and configuration to determine against fixed standards, the desirability of permitting their establishment on any given site. They are uses that may or may not be appropriate in a particular location depending on a weighing, in each case, of the public need and benefit against the community and neighborhood impact and effect as well as consistency to the comprehensive plan.

10-3 Procedure and Meetings

The following procedure shall be followed to obtain a Conditional Use permit:

1. **Application** An owner or owner's designated agent shall complete and file a Conditional Use application form with the Zoning Administrator accompanied by a nonrefundable application fee which may be amended from time to time, as established by the Town Board by resolution, to cover costs of public notice and administrative review. Ten copies of a scaleable development plan will be required with the written application.
2. **Public hearing** After receiving the request, the Town Clerk shall refer the matter to the Plan Commission, which shall hold a public hearing advertised by a Class 2 notice.
3. **Action by Plan Commission** The Plan Commission shall, within thirty (30) days of the public hearing, make a report and recommendation of approval or denial of the Conditional Use permit with any conditions it may deem appropriate to the Town Board. In making its decision, the Commission shall keep a written record of findings relative to the standards for considering a Conditional Use application, as listed in 10.56.
4. **Action by Town Board** The Town Board shall, within thirty (30) days of Plan Commission action, act to approve or deny the Conditional Use permit by resolution.

10-4 Application Requirements

The applicant shall provide the following information on the Conditional Use application form:

1. Applicant and property owner's name, address, and telephone number.
2. Parcel information, including tax key number, legal description, street address, if any, dimensions and existing zoning and land use designations.
3. Description of Conditional Use being requested.
4. Written justification for the Conditional Use being requested and supporting documentation describing how the applicant believes that the request conforms to the standards for Conditional Uses listed in subsection.

Note only applicable to the Exclusive Agricultural District: When applying for a nonfarm residential Conditional Use Permit in a certified Exclusive Agricultural district, the petitioner should be aware of the following:

- a. *Based on a one acre residential lot size in the Exclusive Agricultural Zoning District and on the 1:20 ratio of nonfarm acreage to farm acreage, a base farm tract must be 21 acres or larger in order to allow one (1) nonfarm residential Conditional Use Permit.*
- b. *The maximum amount of nonfarm residential acreage cannot exceed the amount determined by the following formula: Nonfarm Residential acreage = Total Base Farm Tract acreage divided by 21.*
- c. *The amount of nonfarm acreage left available for lot creation will be determined by the Zoning Administrator prior to accepting a conditional use application.*
- d. *The list of nonfarm residential acreages counted toward the ratio calculation should also include any existing nonfarm residences that do not have a Conditional Use permit or that are not part of the application for the Conditional Use permit.*

10-5 Development Plan Requirements

Submission of a conditional use permit request will need to include a development plan that has the following information:

1. North arrows, date of preparation, and scale on 8½" x 11" size paper
2. Name(s) of all adjacent or surrounding streets and right-of-way width(s)
3. Recorded property lines and their dimensions
4. All existing and proposed buildings and structures accessory to the principal use, including the use of each building or structure, dimensions and their locations on the parcel
5. Dimensions of existing and proposed yard setbacks for buildings and structures
6. Dimensions of existing and proposed parking, loading, and unloading areas, and size of existing and proposed driveways
7. The location of proposed and existing signage.
8. The location and type of all proposed and existing exterior lighting fixtures.
9. The location, height and materials of all proposed and existing fences or retaining walls
10. Submit preliminary architectural plans for the existing and proposed buildings that show sufficient detail to permit an understanding of the style of the development and the design of the building(s).
11. Stormwater and erosion control plan
12. Other additional information that may be deemed appropriate by the Zoning Administrator.

10-6 Standards for Granting Conditional Use Permits

1. No Conditional Use permit shall be recommended by the Plan Commission or approved by the Town Board unless it shall find that:
 - a. **Zoning** The proposed use conforms to the general purposes and intent of the Franklin Unified Development Ordinance.
 - b. **Comprehensive Plan** The proposed use is consistent with the goals and objectives of the Franklin Comprehensive Plan
 - c. **Traffic** Access to the property can meet access control requirements
 - d. **Landscaping and screening.** Appropriate landscaping and screening has been or will be provided to protect adjacent uses or properties from light, noise and other visual impacts that are associated with the proposed use.
2. Other issues to be considered for conditional use permits in the Exclusive Agricultural District are as follows:
 - a. The need of the proposed use for a location in an agricultural area.
 - b. Productivity of the lands involved.
 - c. The location of the proposed use so as to reduce to a minimum, the amount of productive agricultural land converted.
 - d. The effect of the proposed use on water or air pollution, soil erosion and rare or unreplaceable natural resources.

10-7 Conditions, Guarantees and Validity Period

The following conditions, guarantees and validity period may be imposed upon the granting of a conditional use permit:

1. Prior to the granting of any Conditional Use permit, the Plan Commission may recommend and the Town Board may place such conditions and restrictions upon the establishment, location, construction, maintenance and method or hours of operation as deemed necessary for the protection of the public interest and to secure compliance with the standards specified in 10-6. In all cases in which Conditional Uses are subject to conditions, the Plan Commission may recommend and the Town Board may require evidence and guarantees as it may deem necessary (as proof that the stipulated conditions are being and will be complied with).
2. Conditional Use permits shall be issued permanently or for a specified period of time as may be specified by the Town Board upon recommendation of the Plan Commission and shall be an obligation of any party to whom a property may be transferred or assigned.
3. A Conditional Use permit shall expire if the use is discontinued for a period of twelve (12) consecutive months. If a building permit has not been obtained or the Conditional Use has not been established within twelve (12) months of the issuance of the Conditional Use permit, the Conditional Use permit expires.
4. Any party who has been issued a Conditional Use Permit by the Town shall notify the Town, in writing, that they are seeking a continuance or extension of any Conditional Use Permit that has an expiration date as established by Town Board. Such

notification shall be submitted to the Zoning Administer thirty (30) days prior to the Conditional Use Permit expiration date.

5. A Conditional Use permit shall become effective upon approval by the Town Board. A record of the conditional use permit shall be maintained in the Town Hall.
6. A Conditional Use permit may be revoked by the Town Board for failure to comply with all provisions of such permit, provided that thirty (30) days notice has been given by first class mail to the operator or owner of such use of the intent to revoke.

SECTION 11 BOARD OF APPEALS

11-1 Establishment of Board of Appeals

In order that the objectives of this ordinance may be more fully and equitably achieved and a means for interpretation provided, there is established a Board of Appeals (hereinafter referred to as the Board).

11-2 Membership and Terms of Office

1. **Board Members.** The Board shall consist of five members appointed by the Town Chairman and confirmed by the Town Board. The Town Chairman shall designate one of the Board members chairman. The Town Clerk shall serve as Secretary of the Board. Board members shall be removable by the Town Board Chairman for cause upon written charges and after a public hearing.
2. **Alternate Members.** The Town Chairman may appoint two alternate members to the Board. Annually, the Town Board Chairman shall designate one of the alternate members as first alternate and the other as second alternate. The first alternate shall act, with full power, only when a member of the Board is absent or refuses to vote because of interest. The second alternate shall act only when the first alternate so refuses or is absent or when more than one member of the Board refuses or is absent.
3. **Terms.** Board members shall be appointed to three year terms, except of those first appointed, in which case one member shall serve for one year, two members for two years and two members for three years. Alternate members shall serve staggered terms of three years.
4. **Vacancies.** Vacancies shall be filled for the unexpired terms of members whose terms become vacant.

11-3 Procedures, Meetings, Records and Decisions

1. **Filing Fee** A fee in an amount determined by the Town Board is required to be paid by the applicant for each application or appeal to the Board of Appeals, which fee shall be paid to the Town Treasurer and receipt therefore filed with the application.
2. **Procedures** The Board of Appeals shall be governed by the provisions of Section 62.23(7) (e) of the Wisconsin Statutes, the Unified Development Ordinance of the Town of Franklin and the powers and duties set forth herein, adopted as part of this ordinance. No powers and duties in this section shall be changed or waived without the affirmative vote of four members of the Board and the concurrence of the Town Board.
3. **Meetings** Meetings of the Board shall be held at the call of the Chairman and at such other times as the Board may determine. Such Chairman, or in his absence, the acting chairman, may administer oaths and compel the attendance of witnesses. All meetings of the Board shall be open to the public.
4. **Records and Decisions** The Board of Appeals shall keep minutes of its proceedings, showing the motion and vote of each member upon each question, or, if absent or failing to vote indicating such act, and shall keep records of its

examinations and other official actions, all of which shall be immediately filed in the office of the Board and shall be a public record. If a quorum of the Board is present, the Board of Appeals may take action by a majority vote of members present. Any action of the Board of Appeals shall state the facts or reasons forming the basis of the action. The Chairman shall notify the Town Board and Town Board Chairman of all decisions and resolutions.

5. **Public Hearing** Upon filing with the Board of Appeals of an appeal or an application for a variance, the Zoning Administrator shall fix a reasonable time (not more than 60 days from the filing date) for a public hearing. A Class 2 notice pursuant to Chapter 985 Wisconsin Statutes shall be published in the official newspaper of the Town of Franklin specifying the date, time and place of the hearing and the matters to come before the Board. The Zoning Administrator shall also mail a notice at least 10 days before the hearing to the owner's of property contiguous to the property, subject to the proposed variance of appeal. The owners shall be determined by the ownership indicated in the real estate records at the Manitowoc County Treasurer's office. Any defect in providing this notice shall not affect the proceedings of the Board of Appeals.

11-4 Appeals

1. **Powers and Duties** The Board shall have the following powers:
 - a. To hear and decide appeals where it is alleged there is error in any order, requirement, decision or determination made by an administrative official in the enforcement of this section or of any ordinance adopted pursuant thereto
 - b. To hear and decide a special exception to the terms of the ordinance upon which such board is required to pass under such ordinance
 - c. To authorize, upon appeal in specific cases, a variance from the terms of the ordinance as will not be contrary to the public interest, where, owing to special conditions a literal enforcement of the provisions of the ordinance will result in practical difficulty or unnecessary hardship so that the spirit of the ordinance shall be observed, public safety and welfare secured, and substantial justice done.
 - d. To hear and decide if a nonconforming use may be changed or enlarged
2. **Procedure** An appeal from any decision of the Zoning Administrator shall be made within 30 days of such decision. The appeal shall be filed with the Zoning Administrator and Board of Appeals on a form provided by the Board specifying the grounds for the appeal. The Zoning Administrator shall forthwith transmit to the Board all the papers constituting the record upon which the action appealed from was taken.
3. **Withdrawal** If the applicant elects to withdraw the appeal any time before final determination is made by the Board, this fact shall be noted on the application, with the signature of the applicant, attesting withdrawal. Copies of the withdrawn application shall be returned to the secretary for the files of the Board, to the Zoning Administrator and to the applicant.
4. **Additional Information** If the appeal is not withdrawn, the Board may request the applicant to provide such additional information as may be needed to determine the

case and shall instruct the secretary to proceed with public notice of a hearing of the case.

5. **Amendments** Amendment of an appeal by the applicant may be permitted at any time prior to or during the public hearing, provided that no such amendment shall be such as to make the case substantially different from its description in the notice of public hearing. If the amendment is requested by the applicant after public notice of the hearing has been given, and such amendment is at variance with the information set forth in the public notice the applicant shall pay an additional fee to cover the cost of amending the public notice. If the amended notice can be published within the time frame specified for the public hearing, the hearing on the amended appeal may be held on that date, otherwise the Chairman of the Board of Appeals shall announce that the hearing originally scheduled on the case will be deferred to a future meeting, before which appropriate public notice will be given, and will state the reasons for the deferral.

11-5 Requirements of a Variance

In general the power to authorize a variance from the requirements of the ordinance shall be sparingly exercised and only under peculiar and exceptional circumstances. No variance shall be granted for actions which require an amendment to this ordinance. Variances shall only be granted when the Board finds that:

1. The variance is not contrary to the public interest and that such variance will be in general harmony with the purposes and intent of this ordinance.
2. Special circumstances and conditions exist which are peculiar to the land, structure or building involved and which are not generally applicable to other lands, structures, or buildings in the same district.
3. The variance will not permit the establishment of a use which is not permitted in the district.
4. The hardship results from the strict application of this ordinance and is not the result of self-created or self-imposed circumstances.
5. Greater profitability, lack of knowledge of restrictions and other variances granted under similar circumstances are not being considered as sufficient cause for a variance.
6. Nonconforming uses of neighboring lands, structures or buildings in the same district, and permitted or nonconforming uses of lands, structures or buildings in other districts are not being considered as grounds for issuance of a variance.
7. That the variance is compatible with adjacent existing uses and structures or uses and structures likely to develop which are permitted in the district;
8. That adequate measures are taken to provide for drainage;
9. That ingress and egress to the property is provided in such a manner as to minimize traffic hazards and congestion;
10. That adequate parking and loading areas are provided.

11-6 Appeal of Board Decisions

Any person or persons, jointly or severally aggrieved by any decision of the Board of Appeals, or any taxpayer, or any officer, department, board, or bureau of the Town may appeal the decision of the Board of Appeals within 30 days after the filing of the decision in the office of the Board of Appeals in accordance with Section 62.23(7) Wis. Stat.

SECTION 12 AMENDMENTS

12-1 Power of Amendment

The Town Board may, from time to time on its own motion or on petition, amend, supplement or change this ordinance, including the Official Zoning Map.

12-2 Public Hearing and Notice

1. **Required Hearing** No amendment of this ordinance shall become effective until it is forwarded to the Plan Commission for review and recommendation. Once the Plan Commission forwards their recommendation to the Town Board, a public hearing is scheduled to allow parties in interest and citizens to be heard. If the Plan Commission does not provide a recommendation within 60 days, the Town Board may proceed to hold a public hearing without the recommendation.
2. **Notice of Hearing** A Class 2 notice in accordance with Chapter 985 of the Wisconsin Statutes shall be published in the Town of Franklin's official newspaper once during each of the two weeks prior to the Town Board hearing.
3. **Notification to Adjoining Municipality** At least 10 days before the public hearing, a written notice of such hearing shall also be given to the clerk of any municipality whose boundaries are within 1,000 feet of any lands included in the proposed amendment. Failure to give such notice shall not invalidate such amendment.

12-3 Final Approval by Town Board

1. An amendment shall become effective upon a majority vote of the members of the Town Board voting on the proposed change.
2. In the case of a protest against such amendment, duly signed and acknowledged by the owners of 20 percent or more of the land included in such proposed amendment or by the owners of 20 percent or more of the area immediately adjacent extending 100 feet therefrom, or by the owners or 20 percent or more of the land directly opposite thereto extending 100 feet from the street frontage of such opposite land, such amendment shall not become effective except by a favorable vote of three-fourths of the members of the Town Board voting on the proposed change. In the case of a legal protest, such amendment shall not become effective except by a favorable vote of three-quarters of the members of the Town Board voting on the proposed change.
3. No Amendment will become effective until the Manitowoc County Board approve the Zoning amendment.

12-4 Rezoning Findings of Fact

12-41 Plan Commission Findings of Fact

The Plan Commission shall include a "findings of fact" in their recommendation to rezone land out of the Exclusive Agricultural District. If a petitioner is rezoning lands out of the Exclusive Agricultural District, the Plan Commission must find all of the following, after public hearing:

1. The land is better suited for a use not allowed in the Exclusive Agricultural Zoning District.
2. The rezoning is consistent with any applicable comprehensive plan.
3. The rezoning is substantially consistent with the county certified Farmland Preservation Plan.
4. The rezoning will not substantially impair or limit current or future agricultural use of surrounding parcels of land that are zoned for or legally restricted to agricultural use.

12-42 Town Board Findings of Fact

Upon consideration of the Plan Commission's recommendations and "findings of fact", the Town Board must make a motion to send the rezoning back to the Plan Commission for further consideration, approve the rezoning, or deny the rezoning. The Town Board has the option of revising the Plan Commission's "finding of fact" in their motion. The Town Board's decision to grant a rezoning out of Exclusive Agricultural District shall also include "findings of fact" based on 91.48(1) of the Wisconsin State Statutes as referenced in 12-41, 1 through 4.

12-43 Findings of Fact in Rezoning Application

The applicant who desires to rezone land from an Exclusive Agricultural District to another zoning district will be responsible for documenting how 91.48(1) of the Wisconsin State Statutes will be met. Such documentation must be submitted as part of the rezoning application before the Town of Franklin's Zoning Administrator will accept the petition as complete. In addition, the Town will enforce the "findings of fact" according to Section 8-1 in the Enforcements, Remedies and Penalties section of this ordinance.

Section 12-5 Fees

All persons, firms, or corporations performing work, which by this Ordinance shall require the issuance of a permit or the holding of a public hearing, shall pay a fee for such permit or hearing to the Plan Commission or its administrative staff (code administrator) to help defray the cost of administration, investigation, processing and legally required advertising.

12-51 Building Permit Fee

A fee in an amount determined by the Town Board is required to be paid by the applicant for a building permit. The fee shall be paid to the Town Treasurer. A building permit must be secured prior to any construction or building site preparation.

12-52 Zoning Amendment Fee

A fee in an amount to be determined by the Town Board is required for any petition for the amendment of this zoning ordinance, which fee shall be paid to the Town Treasurer and receipt therefore filed with the amendment petition. In addition thereto, a petitioner shall be charged with the cost of the official newspaper publication of the notice of hearing. This provision shall not apply to amendments initiated by the Town Board.

12-53 Conversion Fee (Beginning on January 1, 2010) In addition to the Standard Fee, any person who requests rezoning from the Exclusive Agricultural Zoning District to any other zoning district must pay to the Town of Franklin, for each rezoned acre or portion thereof, a Conversion Fee equal to three times the per acre value, for the year in which the land is rezoned, of the highest value category of tillable cropland in the Town of Franklin, as specified by the Wisconsin Department of Revenue under Wis. Stats. 73.03 (2a) and a fifteen (15) percent administrative fee.

12.54 Schedule of Conversion Fees

1. The schedule of conversion fees may be adjusted based on the annual Department of Revenue Use Value Guidelines for Agricultural Land Assessment table. Such adjustment shall occur annually by the Town Board and shall be kept on record with the Town Clerk.
2. By March 1 of each year, the Town of Franklin will provide all of the following to DATCP.
 - a. A report of the number of acres that the Town of Franklin has rezoned out of an Exclusive Agricultural Zoning District the previous year and a map that clearly shows the location of those acres.
 - b. A conversion fee for each rezoned acre reported.
 - c. A report of the total amount of conversion fees that the Town of Franklin received as conversion fees for the rezoned acres.

SECTION 13 LAND DIVISION PROCEDURES

13-1 Purpose.

This ordinance regulates the division of land within the Town of Franklin in order to promote the public health, safety, and general welfare; to further the orderly layout and use of land; to prevent the overcrowding of land; to lessen congestion in the streets and highways; to provide for adequate light and air; to facilitate adequate provision of public services; **protect ground water by limiting the number of new wells**, and to promote proper monumenting of land subdivided and conveyance by accurate legal description.

13-2 Applicability

For purposes of this section of the Unified Development Ordinance, the following regulations apply to the following types of land divisions:

13-21 Certified Survey Map

Any division of platted or unplatted land, other than a subdivision, containing up to four parcels (including the parent parcel) shall be surveyed and legally defined in the form of a certified survey map, as specified in Wis. Stat. Ch. 236.

13-22 Annual Quota on Certified Survey Maps

The number of lots created by Certified Survey Maps in the Town of Franklin will be limited to the first ten (10) lots in a calendar year, starting January 1 of each year.

13-23 Subdivision

To preserve farmland, protect the groundwater, and implement the goals and objectives of the Town of Franklin's Comprehensive Plan, all new subdivisions (other than CSM's) must be "Conservation" type subdivisions, as described in 13-15 of this ordinance. In addition, a "conservation" type subdivision can only be platted within a "Residential Expansion Area" as shown (or amended to be shown) on the Franklin Land Use Plan and is not allowed in an Exclusive Agricultural District.

13-24 Condominiums

A condominium plat is defined and regulated in this ordinance and under Chapter 703 of the State Statutes.

13-25 Exceptions

The provisions of this Ordinance shall not apply to:

1. Transfers of interests in land by will or pursuant to court order.
2. Leases for a term not to exceed ten (10) years, mortgages, or easements.
3. The sale or exchange of land between owners of adjoining property if additional lots are not thereby created, and the lots resulting are not reduced below the minimum sizes required by this Ordinance or other applicable laws or ordinances.
4. The division of land into parcels greater than fifteen (15) acres.

13-26 Administration

These regulations shall be administered by the Town of Franklin Plan Commission and Town Board.

13-27 Land Suitability

No land shall be subdivided or split which is held unsuitable for a proposed use due to flooding, inadequate drainage, rock formation, unfavorable topography, inadequate sewage disposal capabilities, or any other feature likely to be harmful to the health, safety, or welfare of the future residents of the subdivision. The Town of Franklin Plan Commission and Town Board, in applying the provisions of this section, shall in writing indicate the particular facts upon which it bases its conclusions that the land is not suitable for development. The subdivider will be given an opportunity to present any evidence regarding such suitability, if he so desires, at a public hearing before the Plan Commission. Thereafter, the Town of Franklin Plan Commission and Town Board may affirm, modify, or withdraw its determination of unsuitability.

13-28 Manitowoc County Review

Because Manitowoc County has the authority to review any Certified Survey Map or Subdivision within the Town, the subdivider shall comply with the most restrictive requirements of either the Town or County. If either the County or Town deems conditions to be unclear, a joint meeting could be requested by either entity to clarify the most restrictive conditions.

13-3 Certified Survey Map (CSM)**13-31 Submittal**

1. Previous to filing a Certified Survey Map (CSM) of any parcel of land, the subdivider shall consult with the Town Zoning Administrator for advice and assistance to assure the division does not conflict with local, county, or regional plans.
2. The subdivider shall provide the Town with a reasonably accurate concept plan of the land being considered for division. It may be a free hand drawing but of a sufficient scale so that conditions can be determined to be reviewed for proximity to adjacent streets and schools for analysis of soil types, topography, drainage, and generally for the effect the land division would have on the development of surrounding property. Such map shall describe the entire ownership involved in the process of division, provided however, that where the division results in a residual parcel, not intended for immediate sale or other conveyance, the Town Board may waive the requirement for inclusion of the residual parcel. In this case, a supplementary map of reasonable accuracy shall be attached showing the relationship to the original ownership of the parcel or parcels being severed. In the event the division involves the dedication and development of a Town road, the subdivider shall submit an itemized estimate of the costs of required public improvements.
3. After tentative Town approval of a concept plan, the subdivider shall proceed to have a Certified Survey Map prepared. The Certified Survey Map shall be drawn in accordance with this ordinance and shall meet all of the requirements of Sections 236.34 and 236.21 of the State Statutes that relate to subdividing. In addition, when the map is located within a quarter section where the corners have been relocated, monumented or placed on the state plane coordinate system, the CSM shall be tied directly to such section quarter corners. The subdivider shall file ten (10) copies of the CSM along with an application form (available from the Town Zoning Administrator), accompanied by a filing fee (on record in the Town Zoning Administrator's office). Said filing must occur with the Town Zoning Administrator at least ten days prior to the Plan Commission meeting. In the event the division involves the dedication and development of a Town road, the subdivider shall also file a Developer's Agreement.

13.32 Review and Approval

1. An application form and a fee schedule are available from the Town Zoning Administrator. The application form and the appropriate fee (depending upon whether a developer's agreement due to road dedication) will need to be filed before the CSM can be reviewed by the town.
2. The CSM shall be reviewed by the Town Board for conformance with this Ordinance and all ordinances, rules, regulations, and Town's Comprehensive Plan. The certified survey map shall be prepared by a registered land surveyor in accordance with the provisions contained in Chapter 236.34, Wisconsin Statutes, and shall show clearly on its face the following:
 - a. All existing buildings, setbacks, water courses, drainage ditches, names of adjacent owners, setbacks to structures on adjacent property & other features pertinent to division of property.
 - b. Location of access to public road.
 - c. Date of the map with a graphic scale.
 - d. Name and address of the person for whom the survey was made.
 - e. An owner's certificate and approval signature of the Town Chairperson, Town Zoning Administrator, and Town Treasurer's certificate in accordance with Chapter 236.21(3) Wisconsin Statutes, shall be the only approvals required for recording unless additional approvals are necessary for dedication purposes.
 - f. All corners shall be monumented, as required by the State Statutes.
 - g. Prepared on durable white paper, on tracing cloth, or paper (that can be copied), 8 ½ inches wide by 14 inches long. The scale shall not be more than 500 feet to the inch.
3. The map shall include the certificate of the surveyor, giving a clear and concise description of the land surveyed by bearings and distances, commencing with some corner marked and established in the United States public land survey. The surveyor's certificate shall state that he has complied with the requirements of Chapter 236 of the Wisconsin Statutes.
4. The Plan Commission shall review and give their recommendation to approve, deny or hold the CSM for further information. The Town Board shall consider the Plan Commission recommendations and approve, approve conditionally, or reject such Map within sixty (60) days from the date of filing of the Map unless the time is extended by agreement with the subdivider. If the Map is rejected, the reason shall be stated in the minutes of the meeting and a written statement is forwarded to the subdivider. If the Map is approved, the Town Board shall cause the Town Zoning Administrator to so certify on the original Map and return the Map to the subdivider.
5. If public right-of-way is being dedicated, an executed Developer's Agreement shall be required for any proposed improvements as prescribed in Section 13-6 of this Ordinance. The petitioner will be obligated to pay all legal and professional fees associated with the Town's review and approval of the Developer's Agreement.

6. When a certified survey map is platted adjacent to a non-residential use, i.e. agricultural (such as a farm operation), nonmetallic mining (such as a quarry operation), or commercial/industrial operation, the subdivider shall include a statement on the face of the certified survey map that future owners of homes need to be aware of and understand the implications of living next to the specific non-residential use. The disclosure language shall be subject to the review and approval of the Town.
7. The certified survey map shall be recorded with the County Register of Deeds. When a certified survey map has been so recorded, the parcels of land in the map may be described by reference to the number of the survey, the volume and page where recorded, and the name of the county. Any land or improvements offered for dedication and approved by the governing agency accepting the dedication shall be deeded at the time of recording, unless otherwise arranged.

13-4 Subdivision Procedure

Preliminary Consultation

1. When it is proposed to divide land into five (5) or more lots or building sites in one division or by successive divisions, the subdivider shall subdivide in accordance with the following procedures.
2. **Any new subdivision in the Town of Franklin must be a Conservation type of subdivision with a community type well that will supply groundwater to all residents in the subdivision. The information in the preliminary consultation will be used to evaluate a Conservation type subdivision, as identified in 13.146 (Evaluation Criteria) of this Ordinance.**
3. The subdivider shall have an initial consultation with the Plan Commission and any other people deemed necessary, including a Town Planner/Engineer, before proceeding with platting procedures. The subdivider will be asked to submit a concept plan and meet with the Plan Commission on the site proposed for platting. The purpose of this consultation is to have the Plan Commission review the site with the petitioner and establish the parameters, regulations, and policies regarding the following issues:
 - a. The suitability of the site for development
 - b. The accessibility of the site
 - c. The availability of public facilities (sewer, school, parks, water, etc.) and public services (police, fire, etc)
 - d. Soil conditions and drainage patterns
 - e. The effect of the proposed development on any contemplated improvements
 - f. Zoning of the site and regulations that apply
 - g. Required public improvements
 - h. Consistency with the Town's Comprehensive Plan
4. The subdivider shall submit a concept plan on a topographic survey map indicating the nature of the above conditions. The initial concept plan should take into account the

intent of this ordinance as well as any other reviewing agencies' comments obtained in contacts with the appropriate agencies. Additional meetings may be required if the concept plan needs to be significantly altered to meet the criteria identified in this ordinance.

5. The concept plan will be reviewed as it relates to:
 - a. Topography, based on a U.S.G.S Quadrangle map
 - b. The improvements, design, dedications, or reservations required by these regulations
 - c. Continuity to existing development within 300 feet of all boundaries
 - d. Regulations as set down by Chapter 236 of the Wisconsin Statutes
 - e. Consistency with the Town's Comprehensive Plan and any other Town ordinances and policies
 - f. An appropriate amount of conservation area based upon the zone in which it is located

13-5 Developer's Agreement

As part of the final plat submission, the Town requires the subdivider to provide a Developer's Agreement. An example of a Developers Agreement is available from the Town Zoning Administrator. Such an agreement must be approved by the Town Board during the final plat review process. The petitioner will be obligated to pay all legal and professional fees associated with the Town's review and approval of the Developer's Agreement. Any fees that are part of the Developer's Agreement shall be paid prior to town approval of the final plat.

13-6 Preliminary Plat Review

1. Before the review process can begin, and at least thirty (30) days prior to a Plan Commission meeting, the subdivider shall file with the Town Zoning Administrator the following items for Preliminary Plat Review:
 - a. Five (5) full size copies of a 24" x 36" scaled Preliminary Plat and a Preliminary Stormwater Drainage and Erosion Control Plan
 - b. Seven (7) 11" by 17" or 8 1/2" by 11" copy of the subdivision
 - c. Application form (available from the Town Clerk or Zoning Administrator)
 - d. A filing fee (on record in the Town Clerk's office)
2. The subdivider should also file a copy with the utility companies, (Power Company, Telephone Company, and any Cable Company, if any in the area), having jurisdiction over the subject area so that required easements can be determined. The subdivision shall include a statement on the face of the plat that homeowners must connect to sanitary sewer, at their own expense, if ever installed in an abutting street right-of-way. This statement shall also be a separate recorded document and shall apply to future owners of the lots that are listed in the document.

3. Within ten (10) working days after filing, the Town Zoning Administrator shall transmit the following copies (as provided by the applicant):
 - a. Seven (7) 11 inch by 17 inch copies to the Plan Commission
 - b. Three (3) full size copies to the Town Board
 - c. One (1) full size copy for Meeting display and Clerk's Copy
 - d. One (1) full size copy and a preliminary Stormwater Drainage and Erosion Control Plan to the Town Engineer/Planner
4. The subdivider (developer) will be responsible for submitting the required copies to Manitowoc County and State Agency that is responsible for reviewing the preliminary plat according to 236.12 (6) of the Wisconsin Statutes. A copy of the transmittal letter shall be forwarded to the Town Zoning Administrator. State review comments returned to the subdivider shall be forwarded to the Town Zoning Administrator for inclusion in the Town's review. If no objections were made by State reviewing agencies, the subdivider is supplied with a State certified copy. The subdivider must provide the Town with a copy of the State certification indicating no objections were found. If an objecting Agency fails to act within thirty (30) days, it shall be deemed to have no objection to the plat.
5. The Preliminary Plat shall be reviewed by the Plan Commission for conformance with this ordinance and all other ordinances, rules, regulations, and Franklin Comprehensive Plan. The Preliminary Plat shall then be forwarded to the Town Board with a recommendation for approval or rejection. The Town Board is the approving authority for Preliminary Plats.
6. Within ninety (90) days of the date of filing the Preliminary Plat with the Town Zoning Administrator (unless time is extended by mutual consent with the applicant), the Town Board shall approve, approve conditionally, or reject such Plat in accordance with Section 236.11(1) of the Wisconsin Statutes. Failure of the Town Board to act within ninety (90) days shall constitute an approval. One (1) copy of the Plat shall be returned to the subdivider with the date and action endorsed thereon. If approved conditionally or rejected, a letter setting forth the conditions of approval or the reasons for rejection shall accompany the plat. A copy of the plat and letter shall be filed in the Town Zoning Administrator's office.
7. A final plat is entitled to approval if it is submitted within the required timeframe and conforms substantially to an approved preliminary plat.

13-7 Preliminary Plat Data

The preliminary plat shall be drawn at a scale of not more than one hundred feet (100') to an inch and shall show:

1. Title, scale, north arrow, date, and development name.
2. Name and address of owner, subdivider, and registered surveyor preparing the plat.
3. Location of subdivision by government lots, quarter-quarter section, section, township, range, and County.
4. Location Map showing main roadways and the government section in which the

- subdivision lies, with the location of the subdivision indicated.
5. The exact length and bearing of the exterior boundaries of the subdivision.
 6. The location and names of adjacent subdivisions and the owners of adjoining parcels.
 7. Location, widths, gradients, and names of all existing platted or dedicated streets, alleys, easements, railroads, utility rights-of-way, parks, cemeteries, water courses, drainage ditches, bridges, buildings, and other pertinent data as determined by the Commission.
 8. Water elevations of adjoining lakes or streams at the date of the survey and approximate high and low water elevations of such lakes or streams.
 9. A meander line established not less than twenty feet (20') back from the ordinary high watermark, if the subdivision borders on a lake or stream.
 10. Layout and width of all new streets, rights-of-way, and easements.
 11. Approximate dimensions and areas and proposed building setback lines.
 12. Approximate radii of all curves and lengths of tangents.
 13. Location and area of any property proposed to be dedicated for public use or to be reserved by deed covenant for use of all property owners in the subdivision including any conditions of such dedication or reservation.
 14. A description of the improvements including grading, paving, tree planting, and utility installation, such as a public water system, which the subdivider proposes to make, and the time he proposes to make them, and plans and profiles of all street work required to be done.
 15. A brief description of any deed restrictions which are proposed for the plat.

13-8 Final Plat Review

1. Before the review process can begin, and at least thirty (30) days prior to the Plan Commission meeting, the subdivider shall file with the Town Zoning Administrator the following items for the Final Plat Review:
 - a. One (1) original copy and five (5) copies of a 24" x 36" scaled Final Plat and a Final Stormwater Drainage and Erosion Control Plan
 - b. Seven (7) 11" by 17" or 8 1/2" by 11" copy of the final subdivision
 - c. Application form (available from the Town Clerk or Zoning Administrator)
 - d. A filing fee (on record in the Town Clerk's office)
 - e. A Developer's Agreement
2. Within ten (10) working days after filing, the Town Zoning Administrator shall transmit the following copies (as provided by the applicant):

3. Seven (7) 11 inch by 17 inch copies to the Plan Commission
4. Three (3) full size copies to the Town Board
5. One (1) full size copy for Meeting display and Clerk's Copy
6. One (1) full size copy to the Town Designated Engineer and a Final Stormwater Drainage and Erosion Control Plan
7. Response from utility companies shall be submitted for informational purposes to the Town Zoning Administrator when the Final Plat is filed.
8. The subdivider (developer) will be responsible for submitting the required copies to Departments of Manitowoc County and State Agency Divisions that are responsible for reviewing the final plat according to the Manitowoc Ordinances and 236.12 (6) of the Wisconsin Statutes. County and State review comments returned to the subdivider shall be forwarded to the Town Zoning Administrator for inclusion in the Town's review.
9. If no objections were made by a State reviewing agency, the subdivider is supplied with a State certified copy. The subdivider must provide the Town with a copy of the State certification indicating no objections were found. If an objecting Agency fails to act within thirty (30) days, it shall be deemed to have no objection to the plat.
10. The Final Plat may, if permitted by the Town Board, constitute only that portion of the approved Preliminary Plat that the subdivider proposes to record at that time, with any conditions of approval. If the Final Plat is not submitted within twenty-four (24) months of the last required approval of the Preliminary Plat, the Town Board may refuse to approve the Final Plat and may require the subdivider to resubmit a Preliminary Plat subject to Section 13-7, unless the Town and Land developer can reach an agreement as to extending the approval time.
11. Following a recommendation from the Plan Commission, the Town Board shall, within sixty (60) days of the date of filing the original Final Plat with the Clerk, approve or reject such Plat in accordance with Section 236.11(2) of the Wisconsin Statutes, unless the time is extended by agreement with the subdivider. If the Plat is rejected, the reasons shall be stated in the minutes of the meeting and a written statement of the reasons forwarded to the subdivider with a copy to the Plan Commission. The Town Board may not approve the Final Plat unless the Clerk certifies on the face of the Plat that the copies were forwarded to objecting agencies as required herein, the date thereof, and that no objections have been filed within twenty (20) days, or, if filed, have been met.
12. Failure of the Town Board to act within sixty (60) days, with no time extensions, and no unsatisfied objections filed, shall cause the plat to be approved (SS 236.11 (2)).

13-9 Final Plat Data

The final plat shall comply with and include the following information:

1. A final plat prepared by a registered land surveyor shall be required for all subdivisions. It shall comply in all respects with the requirements of Sec. 236.20, Wisconsin Statutes.
2. All building setback lines based on Table 2 of this Ordinance, which are the Town of Franklin's Zoning Setback requirements.
3. All lands reserved for future public acquisition or reserved for the common use of property owners within the plat. If common property is located within the plat, then provisions for its use and maintenance must also be provided with the plat.
4. Exact street width along the line of any obliquely intersecting street.
5. Additional setback lines or yards required by the subdivider which are more restrictive than the zoning district in which the plat is located are to be included in recorded covenants.
6. Location of soil percolation and soil boring tests shall be shown on all plats to be served by on-site sanitary systems.
7. Plan for a public water system, showing the general location of a well, water treatment facility, and a water distribution system.
8. Floodplain and shoreland boundaries and the contour line lying a vertical distance of two (2) feet above the elevation of the 100 year recurrence interval flood or, where such data is not available, five (5) feet above the elevation of the maximum flood of recorded within the exterior boundaries of the plat or located within 100 feet therefrom.
9. Special restrictions required by the Town Board and any other approving or objecting agency relating to access control along public ways, the provision of planting strips or the treatment of shoreland and floodplains.
10. Consistency with the State Plane Coordinate System.
11. Any covenants that will be filed with or separate from the final plat.
12. When residential subdivisions are platted adjacent to a non-residential use, i.e. agricultural (such as a farm operation), nonmetallic mining (such as a quarry operation), or commercial/industrial operation, the subdivider shall include a statement on the face of the plat that future owners of homes need to be aware of and understand the implications of living next to the specific non-residential use. The disclosure language shall be subject to the review and approval of the Town.

13-10 Recordation

1. Following CSM or Final Plat approval by the Town Board and required improvements either installed or a Developer's Agreement and sureties that commit the developer to complete installation are executed and filed, the Town Zoning Administrator shall cause the certificate to be inscribed upon the CSM or Plat. The plat must be recorded in the Manitowoc County Register of Deeds office within 6 months after the date of the last approval of the plat and within 24 months after the first approval.
2. A road access permit (per section 14 of this Ordinance) must be approved by the Town of Franklin before the CSM or Final Plat is recorded, and the permit number shall be shown on the face of the CSM or Plat.

13-11 Surveying and Monumenting

All final plats shall meet all the surveying and monumenting requirements of Sec. 236.15 of the Wisconsin Statutes.

13-12 Certificates

All final plats shall provide all the certificates required by Sec. 236.21, Wisconsin Statutes, and in addition, the surveyor shall certify that he has fully complied with all the provisions of this chapter and shall provide a certificate for Town Board approval.

13-13 Assessors Plat

Where a number of successive divisions have created encroachment issues and confusion over land ownership, the Franklin Town Board may order an Assessor's Plat to be prepared under Wis. Stats. § 70.27., and charge the costs back to the affected property owners.

13-14 CONSERVATION SUBDIVISIONS

13-141 Purpose

Grouping of residences in clusters will permit individual minimum zoned lot size requirements to be reduced, provided the overall zoning density is maintained. The remaining undeveloped area within the subdivision could be set aside for common area that preserves scenic or aesthetic qualities, protects environmentally sensitive areas, or acts as a "buffer area" for adjacent landowners. Grouping of residences can facilitate common water and sewage disposal systems, encourages an improved use of land, and respects the preservation of natural resources.

13-142 Review

Conservation subdivisions shall be submitted for review according to 13-7 to 13-12 of this chapter.

The petitioner will be asked to submit an "existing features map" prior to the preliminary consultation so that the Plan Commission can review it prior to their meeting with the petitioner at the site. The "existing features map" should include the following:

1. A topography map, based on a U.S.G.S. Quadrangle map
2. The location of environmentally sensitive elements such as steep slopes (over 12%), wetlands, watercourses, intermittent streams and 100-year floodplains, and all rights-of-way and easements;
3. Soil boundaries as shown on the Manitowoc County Soil Survey maps published by the Soil Conservation Service
4. The location of features such as woodlands, treelines, open fields or meadows, scenic views into or out from the property, watershed divides and drainage ways, fences or stone walls, rock outcrops, and existing structures. The Existing Features Map shall form the basis for the concept plan, which shall also show the tentative location of houses, streets, lot lines, and conservation areas.

13-143 Requirements

1. The amount of conservation area created in a subdivision shall be at least sixty-five percent (65%) of land within the subdivision. Conservation areas may consist of wetlands, lands that are generally inundated (under ponds, lakes, creeks, etc.), land within the 100-year floodplain, slopes exceeding 12%, and soils subject to slumping and other lands that are not part of the platted lots or public right-of-way. Conservation areas shall be protected by the following means:
 - a. A permanent conservation easement, prohibiting further development, and setting other standards safeguarding the site's special resources from negative changes.
 - b. Conveyance to owners of lots in the development. If the land is to be reserved for use by owners of lots in the development, the land shall be conveyed for use to a homeowners association or similar legally constituted body, which shall also maintain the conservation easement.

- c. Dedication to the Town of Franklin or other governmental body or a recognized land trust or conservancy. Lands dedicated to the public must be accepted by appropriate action of the governing body of the accepting unit of government. Lands dedicated to the Town of Franklin shall be clearly noted on the face of the Final Plat as dedicated to the Town of Franklin. Public street dedication shall meet the conditions of a Town of Franklin Developer's Agreement.
2. Conservation areas shall be designated as undivided open space, to facilitate easement or land dedication monitoring and enforcement, and to promote appropriate management by a single entity according to approved land management standards.
3. A common well and water system will be required to be installed to service all lots in the subdivision. A common sewage disposal system would be preferred but not required. All utility systems must meet minimum State, County, or Town regulations.
4. The design standards, as outlined within this Ordinance, may, at the discretion of the Town Board, be relaxed as an incentive in developing Conservation Subdivisions. Standards that can be relaxed in order to permit more creative land division design include, but are not limited to, lot shape and depth, length of cul-de-sac roads, and road right-of-way width.
5. Pedestrian trails within a Conservation Subdivision may be required to be connected to pedestrian trails in neighboring properties.

13-144 Set-aside Adjustments

1. Conservation Area Percentage Adjustments of the sixty-five (65%) percent requirement set aside may be decreased by five (5) percent for each of the following elements shown in the subdivision (maximum of fifteen (15) percent reduction):
 - a. Use of a Com 83 "community type" sewage system
 - b. Other aesthetics not necessarily required by this ordinance, such as "fitness trails", docks with seating areas in ponds, or other features considered unique and imaginative that will add a distinctive feature and benefit to future residents and the Town.
 - c. Hard surfacing a pedestrian circulation system.
1. All undivided conservation area and any lot capable of further subdivision shall be restricted from further subdivision through a permanent conservation easement, in a form acceptable to the Town of Franklin and duly recorded with the Manitowoc County Register of Deeds.
2. The required conservation area may be used for underground drainage fields for individual or community septic systems.
3. Stormwater management ponds or basins and land within the rights-of-way for underground pipelines may be included as part of the minimum conservation area.

13-.145 Location of Conservation Areas

1. The location of the conservation area, preserved through compact residential development, shall be consistent with the policies contained in the Town's

Comprehensive Plan regarding open space, and the following Evaluation Criteria section.

2. A conservation area should include a 75-foot greenway buffer along any navigable waterways, and if any wetlands are identified, a setback from such protective areas according to NR151.12 (5) (d) regulations.
3. Conservation Subdivisions shall be designed around conservation areas. The design process should commence with the delineation of all potential conservation areas, after which potential house sites are located, the road alignments identified, and lot lines drawn in as the final step.
4. Undivided conservation areas shall be directly accessible to the largest practical number of lots. To achieve this, the majority of lots should abut undivided conservation areas in order to provide direct views and access. Safe and convenient pedestrian access to the conservation areas from all lots not adjoining the conservation area should be provided.

13-146 Evaluation Criteria

The Plan Commission and Town Board shall evaluate Conservation Subdivisions to determine whether information provided at the Preliminary Consultation:

1. Protects and serves all floodplains, wetlands, and steep slopes from clearing, grading, filling, or construction (except as may be approved by the Town for essential infrastructure or active or passive recreation amenities).
2. Preserves and maintains mature woodlands, existing fields, pastures, meadows, and orchards, and creates sufficient buffer areas to minimize conflicts between residential and agricultural uses.
3. If development must be located on open fields or pastures because of greater constraints in all other parts of the site, dwellings should be sited on the least prime agricultural soils, or in locations at the far edge of a field, as seen from existing public roads. Other considerations include whether the development will be visually buffered from existing public roads, such as by a planting screen consisting of a variety of trees, shrubs, and wildflowers.
4. Maintains or creates an upland buffer of natural native species vegetation of at least 75 feet in depth adjacent to wetlands and surface waters, including creeks, streams, springs, lakes and ponds.
5. Designs around existing hedgerows and treelines between fields or meadows, and minimizes impacts on large woodlands (greater than five acres), especially those containing many mature trees or a significant wildlife habitat. Also, woodlands of any size on highly erodible soils with slopes greater than 12% should be avoided. However, woodlands in poor condition with limited management potential can provide suitable locations for residential development. When any woodland is developed, great care shall be taken to design all disturbed areas (for buildings, roads, yards, septic disposal fields, etc.) in locations where there are no large trees or obvious wildlife areas, to the fullest extent practicable.
6. Leaves scenic views and vistas unblocked or uninterrupted, particularly as seen from public thoroughfares. In wooded areas where the sense of enclosure is a feature

that should be maintained, a deep "no-build, no-cut" buffer should be respected to preserve existing vegetation.

7. Protects wildlife habitat areas of species listed as endangered, threatened, or of special concern by the U.S. Environmental Protection Agency.
8. Designs around and preserves sites of historic, archaeological, or cultural significance, and their environs, insofar as needed to safeguard the character of the feature, including stone walls, barn foundations, cellar holes, earthworks, and burial grounds.
9. Protects rural roadside character and improves public safety and roadway carrying capacity by avoiding development fronting directly onto existing public roads.
10. Provides mature Landscape plantings equal to at least five (five) trees (mixture of ornamental and shade tree) per each residential unit, interspersed throughout the subdivision in areas void of trees, cul-de-sac islands, and in visually strategic locations that will add aesthetic appeal to the overall development.
11. Provides open space that is in a reasonably contiguous configuration. Fragmentation of open space should be minimized and not divided into numerous small parcels located in various parts of the development. To the greatest extent practicable, open space should be designed as a single block with logical, straightforward boundaries. Long thin strips of conservation land shall be avoided, unless the conservation feature is linear or unless such configuration is necessary to connect with other streams or trails. The open space should generally abut existing or potential open space land on adjacent parcels (such as in other subdivisions, public parks, or properties owned by or leased to private land conservation organizations).

13-147 Ownership and Maintenance of Open Space

Different ownership and management options apply to the permanently protected conservation areas created through the development process. The conservation areas shall remain undivided and shall either be dedicated as public property in the name of the Town of Franklin, owned and maintained by a homeowner's association, or become a certified conservation easement as identified in a qualified land trust or conservancy district, subject to (1) the Town's first right to require dedication of the entire conservation area to the Town or the Town's assignee and (2) the Town's right to require dedication of up to ten percent (10%) of the parcel to facilitate public trail connections. A narrative shall be submitted for town review that describes the proposed ownership, use and maintenance responsibilities of the conservation area in one of the following ways:

1. **Town Ownership** The Town may, but shall not be required to accept undivided conservation areas provided: (a) such land is accessible to the residents of the Town; (b) there is no cost of acquisition other than any costs incidental to the transfer of ownership such as title insurance; and (c) the Town agrees to and has access to maintain such lands. Such dedication shall be in the form of a fee simple ownership. Where the Town accepts dedication of common conservation areas that contains improvements, the Town may require the posting of financial security to ensure structural integrity of said improvements as well as the functioning of said improvements for a term not to exceed eighteen (18) months from the date of acceptance of dedication. The amount of financial security shall not exceed fifteen percent (15%) of the actual cost of installation of said improvements.

2. Homeowner's or Condominium Association The conservation area can be owned, administered, and maintained by a Homeowner's or Condominium Association. Such association shall have undivided conservation areas and associated facilities held in common ownership. The association shall be formed and operated under the following provisions:

- a. The subdivider shall provide a description of the association, including its bylaws and methods for maintaining a conservation area easement.
- b. The association shall be organized by the subdivider and shall be operated with a financial subsidy from the subdivider, before the sale of any lots within the development.
- c. Membership in the association is mandatory for all lot or condo owners and their successors. The conditions and timing of transferring control of the association from Subdivider to lot or condo owners shall be identified.
- d. The association shall be responsible for payment of taxes on the undivided conservation area, and if not paid in a timely manner, may be collected by liens placed on the association by the Town. The association may also place liens on the lots or condos of its members who fail to pay their association dues in a timely manner. Such liens may provide for the imposition of penalty interest charges.
- e. The members of the association shall share equitably the costs of maintaining and developing such undivided conservation areas. Shares shall be defined within the association bylaws.
- f. In the event of a proposed transfer, within the methods here permitted of undivided conservation area land by the homeowners' or condominium association, or of the assumption of maintenance of undivided conservation area land by the Town, notice of such action shall be given to all property owners within the development.
- g. The association shall have or hire adequate personnel to administer common facilities and properly and continually maintain undivided conservation areas.
- h. The association will be required to maintain a privately created pond or lake or other body of standing water within the boundary of a cluster subdivision, and that a document specify that all lot or condo owners within the cluster subdivision shall have equal rights to said water feature.
- i. The homeowners' or condominium association may lease conservation area lands to any other qualified person, or corporation, for operation and maintenance of conservation area lands, but such a lease agreement shall provide:
 - I. That the lot or condo owners of the development shall at all times have access to the conservation area land contained therein (except croplands during the growing season).
 - II. That the undivided conservation area to be leased shall be maintained for the purposes set forth in this ordinance.

III. That the operation of conservation area facilities may be for the benefit of the residents only, or may be open to the residents of the town, at the election of the developer, and or the condo or homeowners' association, as the case may be.

IV. The lease shall be subject to the approval of the Town of Franklin and any transfer or assignment of the lease shall be further subject to the approval of the Town Board. Lease agreements so entered upon shall be recorded with the Manitowoc County Register of Deeds within thirty (30) days of their execution and a copy of the recorded lease shall be filed with the town.

3. **Conservation Easement** A conservation easement is a voluntary legal agreement between a landowner(s) and a land trust, government agency, charitable corporation, or association in order to permanently protect the natural value of the land by limiting present and future uses. Under such an arrangement, the landowner's continue to own the property in the conservation easement while the land trust takes responsibility for protecting the land's conservation values. The Town Board would need to determine that the proposed conservation easement is an acceptable means of permanently protecting conservation areas in a Conservation Subdivision.

13-148 Dedication of Easements

The Town may, but shall not be required to accept easements for public use of any portion or portions of undivided conservation area land, title of which is to remain in ownership by condominium or homeowners' association, provided:

1. Such land is accessible to town residents.
2. There is no cost of acquisition other than any costs incidental to the transfer of ownership, such as title insurance.
3. A satisfactory maintenance agreement is reached between the developer, condominium or homeowners' association, and the Town.

13-149 Transfer of Easements to a Private Conservation Organization

With the permission of the Town, an easement may be transferred to a private, nonprofit organization, among whose purposes it is to conserve conservation areas and/or natural resources, provided that:

1. The organization is acceptable to the Town, and is a bona-fide conservation organization with perpetual existence.
2. The conveyance contains appropriate provisions for a proper reverter or re-transfer in the event that the organization becomes unwilling or unable to continue carrying out its functions; and a maintenance agreement acceptable to the board is entered into by the Developer and the organization.

13-1491 Maintenance Standards

1. The ultimate owner of conservation areas (typically a homeownership association) shall be responsible for raising all monies required for operations, maintenance, or physical improvements to conservation areas through annual dues, special assessments, etc. The homeowners' association shall be authorized under its

bylaws to place liens on the property of residents who fall delinquent in payment of such dues, assessments, etc.

2. In the event that the association or any successor organization shall, at any time after establishment of a development containing an undivided conservation area, fail to maintain the undivided conservation area in reasonable order and condition in accordance with the development plan, the Town may serve written notice upon the owner of record, setting forth the manner in which the owner of record has failed to maintain the undivided conservation area in reasonable condition.
3. Failure to adequately maintain the undivided conservation areas in reasonable order and condition constitutes a violation of this ordinance. The Town is hereby authorized to give notice, by personal service or by United States mail, to the owner or occupant, as the case may be, of any violation, directing the owner to remedy the same within twenty (20) days.

13-15 Design Standards

General Requirements. A proposed Conservation Subdivision shall conform to all the provisions of Wis. Stat. Ch. 236; the rules and regulations of the State Department of Transportation and the Department of Commerce, and this ordinance officially adopted by the Franklin Town Board.

13-151 Streets

1. The arrangement, character, extent, width, grade, and location of all streets shall conform to this ordinance and shall be related to existing and planned streets, topographic conditions, existing natural features, public convenience and safety, and the existing and proposed uses of the land that is to be served by such streets.
2. The arrangement of streets in a subdivision shall provide, where possible, for the continuation or appropriate projection of existing collector and major streets in the area.
3. Minor streets shall be laid out so as to discourage their use by through traffic.
4. Where a subdivision abuts or contains an existing or proposed arterial street, the Town of Franklin may require marginal access streets, reverse frontage lots with screen planting contained in a non-access reservation along the rear of the property line, or such other treatment as may be necessary for adequate protection of residential properties and to afford separation of through and local traffic.
5. Where a subdivision borders on or contains a limited access highway right-of-way, the Town of Franklin may require a street approximately parallel to and on each side of such right-of-way at a distance suitable for the appropriate use of the intervening land. Such distances shall also be determined with regard for the requirements of approach grades and future grade separations.
6. Street jogs with centerline offsets of less than one hundred twenty-five feet (125') shall be avoided.
7. A tangent at least one hundred feet (100') shall be introduced between reverse curves on major and collector streets.
8. Streets shall be laid out so as to intersect as nearly as possible at right angles and no streets shall intersect any other street at less than sixty degrees (60°), and more than two (2) streets intersecting at one point shall be discouraged.
9. Reserve strips controlling access to streets shall be prohibited. All street right-of-ways shall be of the width specified on applicable street plans officially adopted by the Town of Franklin, or, if not specified there, they shall not be less than the width specified below:

Table 4
Street Specifications

Street Type	Minimum Width	Min. Sight Distance	Minimum Radius	Maximum Grade
Major	120'	500'	300	6%
Collector	80'	350'	350	7%
Minor	66'	200'	200	10%
Shorter than 500'				12%

Notes:

1. Sight Distance. The minimum radii or curvature on the centerline shall be as specified above.
2. Cul-de-Sacs. Streets designed to have one end permanently closed shall not exceed five hundred feet (500') in length and shall provide a turn-around with a minimum right-of-way diameter of 150 feet and a paved area of 120 feet in diameter.
3. Half streets shall be discouraged, but where a half street has been dedicated adjacent to a subdivision, the remaining half of the street shall be dedicated by the subdivider. Where no half street adjacent to a subdivision exists, dedication of a half street shall not be approved unless the remaining portion shall appear as a mapped street on the Official Map.

13-152 Street Names

Any street which is the reasonable continuation of an existing street shall bear the same name. The Town of Franklin may disapprove the name of any street shown on the plat which has already been used elsewhere in the area, or because of similarity may cause confusion, or which is unsuitable because of connotation, or which is difficult to spell or pronounce.

Table 5
Street Nomenclature

Street Type	Curving	Straight
Short Roads	Lane	Lane
Crescent	Court	
Way	Place	
Circle	Terrace	
Long Roads	Drive	Road

13-153 Easements and Restrictions

1. Easements across lots or centered on rear or side lot lines shall be provided for utilities where necessary and shall be at least ten feet (10') wide on each side of the lot line.
2. Where a subdivision is traversed by a water course, drainage way, channel, or stream, there shall be provided a storm water easement or drainage right-of-way conforming substantially to the lines of such water course and such further width or construction or both, as will be adequate for the purpose.
3. Residential corner lots in a subdivision shall meet minimum street setbacks for both street frontages.

13-154 Blocks

The lengths, widths, and shapes of blocks shall be such as are appropriate for the locality and the type of development contemplated, but block lengths in residential areas shall not exceed 1,500 feet between right-of-way lines.

1. Lots. The lot size, width, depth, shape, and orientation and the minimum building lines shall be appropriate for the location of the subdivision and for the type of development and use proposed, and said building lines shall be shown on the plat.
2. Every lot in a subdivision shall abut on a public street based on frontage

requirements as specified in the zoning district. Private roads, however, which provide access to no more than two (2) lots or parcels, may be permitted if approved by the Town Board. Such private roads shall meet the design requirements for a minor street in these regulations.

3. Side lot lines shall be substantially at right angles or radial to street lines.
4. Double frontage, or reverse frontage lots are encouraged to lesson the amount of direct access onto a Town, County or State Road and meet access restrictions. A planting screen easement of at least twenty feet (20') shall be provided along the line of lots abutting a traffic artery.

13-155 Public Sites and Open Spaces

1. Where a proposed subdivision on a tract of land contains an area that is unsuitable for development due to poor drainage, floodable conditions, soil conditions, or for any other reasons, such lands shall either be dedicated to the Town of Franklin, set aside as a Conservation Easement, or become an outlot that is owned and maintained by a Homeowners Association.
2. The Town of Franklin will have the right to accept or reject dedication, and will advise the developer what the Town's preference would be.

13-156 Building Setback Lines

Building setback lines shall conform to the requirements established in the Zoning requirements shown on Table 2 of this ordinance, and shall be shown on the preliminary plat for determination of buildable area.

13-16 Required Improvements

13-161 Plans and Written Agreement Required

The developer shall install the improvements outlined in this section, and any other reasonable improvements that may be deemed necessary by the Town due to unique circumstances associated with the proposed subdivision. All improvements shall be set forth in plans and specifications approved by the Plan Commission and in a standard written agreement between the Town and the developer to be known as the "Developer's Agreement."

13-162 Inspection

The developer shall follow the approved plans and specifications, including a performance time schedule, and permit Town inspection of the work as it proceeds, with payment for said inspection by the developer.

13-163 Financial Surety

Prior to the commencement of construction, the developer shall provide acceptable sureties that all required work shall be completed. The amount of surety shall be 125 percent of the Town Engineer's estimated full amount of the obligation being ensured (including the costs of inspection), nor for less a period than the work is scheduled to be completed; however, the Town Board shall allow reductions in the amount of the surety in proportion to the amounts of the obligations as they are fulfilled. In a dispute over the amount of surety, the estimate prepared by the Town Engineer shall be given the greater weight.

13-164 Warranty

The developer shall warranty work and materials for 1 year after adoption of a resolution of acceptance by the Town Board. To assure such improvement warranty, the developer shall provide an amount of financial surety (performance bond or letter of credit) not to exceed 15 percent of the construction value of the improvements. If necessary, the Town Board shall utilize said surety to have repairs or other work completed.

13-165 Commencement and Completion

Construction or installation of improvements shall not commence until the Preliminary Plat has been approved by all agencies having authority to review the plat and written authorization has been provided by the Town Engineer. All work or improvements to the subdivision shall also be subject to inspection by the Town to determine conformance with any applicable requirements. The construction of all improvements required by this Ordinance shall be completed within two years from the date of the Town Board approval of the Preliminary Plat.

13-166 Roads Dedicated to the Public

Such roads will not be accepted by the Town until all outstanding bills related to the construction of the improvements in the subdivision have been paid in full.

13-167 Survey Monuments

The developer shall install survey monuments placed in accordance with the requirements of section 236.15, WIS. STATS., and as may be required by the Town.

13-169 Road Construction

Road construction shall conform to the standards described in the Town of Franklin New Public Road Ordinance (Ordinance #2000-1, adopted November 20, 2000). The developer shall install base course material over the approved subgrade, followed by a finished surface paving in one or more courses in accordance with the approved plans and specifications. The developer shall assume the entire cost for such pavings within the subdivision.

13-1691 Road Shoulder, Ditches, Roll-Over Curbing, Culverts, and Endwalls

1. In compliance with the Town of Franklin Roadway Design and Construction Standards Ordinance, the developer shall install road shoulder material and the adjacent ditch or swale (2-1 slope), both to finished grades in accordance with the approved plans and specifications. The developer shall be responsible for installing all necessary culverts and endwalls and, re-install top soil, grade, seed and mulch all surface ditch inverts to prevent erosion and sedimentation as described in the Developers Agreement.
2. The developer shall assume the entire cost of the road ditch within the subdivision.
3. Curbing is not required by the Town, but where proposed by the developer it shall be of a roll-over design and subject to the approval of the Plan Commission.
4. Vision corner easements shall be required at all public road intersections, subject to Town, County and State regulations that govern such easements.

13-1692 Storm water Drainage Facilities

Adequate facilities to provide storm water drainage, including culverts, improved open water courses, graded, constructed, and landscaped, storm sewers or other drainage structures shall be designed and installed in accordance with state codes, these regulations, and town or county specifications. Prior to construction, the Developer's Agreement specifying road construction design, timing, and responsible parties doing the work must be approved by the Town of Franklin.

13-1693 Water Supply

A developer of a Conservation Subdivision will be required to build a public water system that includes a well, water treatment, and water distribution system by means of a pressurized water line to each lot in the subdivision.

13-1694 Sewage Disposal Facilities

Public sewage disposal facilities are not available in the Town of Franklin. Any private disposal facilities are the responsibility of the developer and/or lot owners and must meet the requirements of the Manitowoc County Sanitary Code.

13-1695 Other Utilities

1. The developer shall cause electrical power and telephone facilities to be installed in such a manner as to make adequate service available to each lot in the subdivision, and natural gas for heating if it is available. All new electric or communication lines from which lots are individually served shall be installed underground, unless the approving authorities shall find, after study, that the location, topography, soil, stands of trees or other physical barriers would make underground installation unreasonable or impracticable or that the lots to be served by said facilities can be served directly from existing overhead facilities. Associated equipment and facilities which are appurtenant to underground electric and communications systems including, but not limited to, substations, pad-mounted transformers, pad-mounted sectionalizing switches and pedestal-mounted terminal boxes may be located above ground.
2. A plan indicating the proposed location of all gas, electrical power and communication distribution and transmission facilities required to service the plat shall be approved by the Plan Commission for coordination with the location of Town roads.

13-1696 Street Name Signs

To avoid the same, or similar sounding street names, the developer must submit proposed street names to the Town of Franklin Zoning Administrator, Local Postmaster, and the Manitowoc County Emergency Dispatch for review and approval before using the street names on the Preliminary or Final Plat. The developer shall also install street name signs, based on Town specifications.

13-1698 Dry Hydrants

In areas where there is no public water supply, fire ponds are encouraged and subject to review and approval by the Fire Chief. Upon a recommendation by the Fire Chief, the Town Board may require an independent engineering feasibility study. Hydrants or other provisions for drafting water shall be provided to the specifications of the Fire Department. Minimum pipe size connecting dry hydrants to ponds shall be 6 inches. Where the dry hydrant or other water source is not within the right-of-way of a proposed or existing street, an easement to the Town shall be provided to allow access to, and construction of, a hydrant or other water source. Though the facility will be owned in common by the residents of the subdivision, the maintenance of the hydrant shall be the responsibility of the Fire Department.

13-1699 County and State Roadways

If any Manitowoc County or State of Wisconsin roadways are impacted by plat construction, the developer will need to obtain approvals from those respective entities and supply the Town of Franklin with a copy of approvals to work within their right-of-ways.

13-17 Disclaimer

These land division procedures shall not be construed to impose any responsibility or liability on the Town that property transfers in the Town are in compliance with applicable ordinances, regulations, and rules. The Town assumes no responsibility for the suitability of any property which is subject to approval for division by the Town Board. All actions taken hereunder are for the convenience of the Town in order to determine compliance with this ordinance and are not intended to be relied upon by the owner for any other purpose.

SECTION 14 ACCESS CONTROL TO TOWN ROADS

14-1 Existing Points of Access

All points of access that existed prior to the adoption of this ordinance may be continued. However, if the use of an established point of access is discontinued for a period of one year, the Town of Franklin may revoke the access privilege or require alterations or improvements to achieve compliance with this regulation.

14-2 Change in Use

The Town of Franklin has the right to review and approve (or deny) an existing point of access if a change in the use of the land could affect the safe and efficient ingress and egress to a town road.

14-3 Right of Access for Parcels Existing Prior to Enactment

Each platted lot prior to the existence of this ordinance is entitled to one access. Non-legal conforming lots under common ownership and use shall be considered one lot for purposes of these regulations and limited to one access point.

14-4 Roads in platted CSM's and Subdivisions

Access control limitations do not apply to publicly dedicated or private roads that exclusively serve a CSM or subdivision and whose lots are not dependent on access to the Town's north-south, east-west public road system.

14-5 Standards for Access

The following access standards shall be met for any new driveway permit:

1. A developer or property owner who intends to plat his or her land shall consult with Town Officials or designated agent for guidance regarding the goals and objectives of the Town's Comprehensive Plan and the general requirements of this Section as it relates to access.
2. Each lot in a preliminary plat or Certified Survey Map, hereafter reviewed by the Town of Franklin, shall show the general location of an access point. To determine the best location for access to each lot, the Town of Franklin may require more information about the proposed preliminary plat or Certified Survey Map (if not already required during the platting process). Such information may include scaled drawings of the lot, any existing access, engineering data, traffic generation numbers (existing and future), property lines, topography, streams, ponds, wetlands and location of existing and proposed buildings and structures. Approval of access points on a final plat or Certified Survey Map does not remove the obligation of the party to seek a highway permit in compliance with this section.
3. When property ownership involves more than one adjacent parcel (of the same use),

all parcels fronting a Town Road shall be treated as a single parcel for the purpose of this section.

4. Only one access shall be allowed when a parcel is used for residential purposes.
5. Access permits may be denied on Town Roads when the horizontal distances between access points, measured at the centerline, would be less than 400 feet from another access point on either side of the road. No more than 10 access points will be issued (including all existing access points on both sides of the road) per mile of Town Road
6. For purposes of this section, State, County, and Town roads shall not be counted as access points.
7. A Town road access point must have a horizontal distance of 1,000 feet from a State or County Road intersection.
8. Notwithstanding paragraph e, agricultural properties may have more than one agricultural access per 40 acre if the property can show need for an additional point of access.
9. Wherever possible, roads should not be staggered, creating "T" intersections, but should be directly across from other roads and driveways on the opposite side of the road.
10. The Town of Franklin Town Board may reduce these requirements if it can be established by sufficient evidence by a petitioner that there is unnecessary or extreme hardship.
11. Parcels used for commercial, industrial, or mega-farm operations may be allowed two points of access, provided each meet the remaining criteria of this section and truck or vehicular trips exceed 100 vehicles per day.

14-6 Location, Design, and Construction Requirements

The location, design and construction of a Town Road access shall be built in accordance with the following policies and limits:

1. A driveway shall have a maximum top width of twenty-four (24) feet for residential and thirty-five (35) feet for commercial, industrial, or agricultural uses, unless otherwise approved by the Town of Franklin.
2. All driveways shall be constructed so as to ingress and egress onto a Town Road at a ninety (90) degree angle, unless otherwise approved by the Franklin Town Board, based on hardship or impracticality.
3. All driveways shall be constructed of solid load bearing material. The top surface of the driveway shall consist of at least six inches of gravel upon the traveled portion.

Attachment 5 – Five-Year Review Ad

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Education

Herald Times Reporter

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Continuing education offers opportunities beyond classroom

By Suzanne Lawrence

As an educational presence in Manitowoc County for more than 50 years, the University of Wisconsin-Manitowoc is most commonly recognized as a two-year, associate-degree granting institution.

Many people don't realize, however, that UW-Manitowoc also offers educational and cultural opportunities that extend beyond the typical classroom. These opportunities present themselves in the forms of non-degree career preparation, customized training, personal development, educational travel, youth programming, theater, and collaborative events that provide

cultural enrichment. Through the Office of Continuing Education, UW-Manitowoc is able to offer unique, practical, and thoughtful programming that falls under the heading of "continuing education."

What is "continuing education?" The phrase is typically associated with adults looking to complete a bachelor's or master's degree. However, in the context of the UW System, we define continuing education in broad terms since we believe that education can happen in uncommon settings and through a variety of different activities. For example, you can travel with us to Ireland to learn about Irish histo-



Suzanne Lawrence
UW-Manitowoc
Director of Continuing Education

ry, culture, and geography, attend the upcoming Laughter on the Lakeshore theater event, develop a business plan in a six-week online course, or request a needs assessment for your organization. With a wealth of education and expertise, our on-campus and continuing education faculty and staff are well prepared to bring quality education to the Manitowoc Community in various ways.

Many exciting courses are scheduled for the fall including: Whole Brain Health and

Fitness, Alzheimer Proofing Your Home, Mindful Flow Yoga, Essential Oil Workshop, Intro to Sound and Vibrations: A Self-Care Exploration, Introduction to Fermentation, Simply Feng Shui, IPH neography, Beginning Guitar, Conversational Spanish and more! In addition, Instructor-facilitated online courses that are informative and highly interactive are also offered. These courses are six weeks in length and can be taken entirely from the comfort of your home or office.

Also this fall, continuing education is once again joining forces with Heart-A-Rama to present "Laughter on the Lake-

shore with Barbecuing Hamlet." This comedy has an odd cast of characters who have decided Shakespeare's Hamlet will be this year's community theater production. However, there are a few catches—the theater is a renovated funeral home, they can't disturb the lady who lives below the theater, sponsor names must be mentioned in the play, and it must take place in the Old West. A variety of eccentric characters come out of the woodwork in this riotous tribute to life on the community theater stage.

"Barbecuing Hamlet" will be performed Sept. 12 and 13 at 7:30 pm in UW-Manitowoc's

University Theatre. General admission tickets are \$12. On Sept. 13, a special pre-show event will begin at 5:30 pm, with live music by Givin' Up the Ghost, a cash bar, and food for purchase from Village Hearthstone Restaurant and Catering. Additionally, UW-Manitowoc alumni are invited to visit the alumni lounge during the event to reconnect, reminisce and view old photos of the campus.

To request a catalog, or for more information, contact Lawrence at (920) 683-4707 or email suzanne.lawrence@uw.edu.

Suzanne Lawrence is UW-Manitowoc Director of Continuing Education.

EDUCATION UPDATE

Dramm names scholarship recipients

MANITOWOC — Dramm Corporation has awarded 11 scholarships for the 2014 school year. Scholarship recipients are students who worked for Dramm part-time during the school year or are dependents of an employee.

This year's recipients are: Max Becker, College of Wooster; Mary Blackwell, University of Alabama; Katherine Bucher, UW-Whitewater; Megan Bucher, University of Wisconsin; Olivia Krejcarek, College of St. Scholastica; Brook Luckow, UW-Manitowoc; Jeremy Luckow, UW-Manitowoc; Michael Steeber, Northwest Tech. College; See-Vixai Thuo, UW-Green Bay, and Landon West,

Northwest Arkansas Community College.

UW-Manitowoc schedules drop-in event Wednesday

The University of Wisconsin-Manitowoc will hold a drop-in Coffee and Conversation event at Red Bank Coffeehouse, 1623 Washington St., Two Rivers, from 11 a.m. to 1 p.m. on Wednesday. Enjoy complimentary coffee and learn about the college planning process from Lana Roeber, Adult Student Recruiter.

Information will be available about last-minute application and registration procedures, career services and the variety of course formats offered at UW-Manitowoc. For more information, or assistance with the Free Application

for Federal Student Aid (FAFSA), contact the Student Affairs Office at UW-Manitowoc at (920) 683-4707 or visit the web at www.uwmanitowoc.edu.

LTC to offer firearm safety course

CLEVELAND — Lakeshore Technical College is offering the course Firearm Safety for Concealed Carry Weapons, which will take place from 8 a.m. to noon on Saturday, Sept. 13, in the Public Safety Building at Lakeshore Technical College.

The class meets the state's education requirements for students to acquire a Wisconsin CCW License/Permit. This course will provide participants with an overview of handgun safety practices and concealed carry considerations. It is designed as a

safety course, not a training course. For example, this course teaches how to identify a loaded handgun and how to safely unload it, but does not teach how to load or fire a handgun.

Participants will also learn the Wisconsin Department of Justice process for obtaining, maintaining, and renewing a concealed carry permit, analyze considerations regarding the carry of a concealed weapon and discuss the legal implications of carrying a concealed weapon.

The cost for this class is \$85 and the class number is 63462. To register, call (888) 468-6582 Ext. 1366. For more information, visit <http://www.gotoltc.edu/seminars/pistol> or call Ruth at (920) 693-1167, or e-mail at ruth.semph@gotoltc.edu.

TODAY IN HISTORY

1587: Virginia Dare became the first child of English parents to be born in present-day America, on what is now Roanoke Island in North Carolina. However, the Roanoke colony ended up mysteriously disappearing.

1920: The 19th Amendment to the Constitution, guaranteeing all American women's right to vote, was ratified as Tennessee became the 36th state to approve it.

1963: James Meredith

became the first black student to graduate from the University of Mississippi.

1969: The Woodstock Music and Art Fair in Bethel, New York, wound to a close after three nights with a mid-morning set by Jimi Hendrix.

1988: Vice President George H.W. Bush accepted the presidential nomination of his party at the Republican National Convention in New Orleans.

Today's Birthdays: Former first lady Rosa-

lynn Carter is 87. Movie director Roman Polanski is 81. Attorney and author Vincent Bugliosi is 80. Olympic gold medal decathlete Rafer Johnson is 79. Actor-director Robert Redford is 78. Actor Henry G. Sanders is 72. Rhythm-and-blues singer Sarah Dash (Labelle) is 71. Actor-comedian Martin Mull is 71. Actor Christian Slater is 45. Actor Edward Norton is 45. Actor Malcolm-Jamal Warner is 44. Actress Kaitlin Olson is 39. Actor-

writer-director Hajjji is 38. Rock musician Dirk Lance is 38. Actor-comedian Andy Samberg (TV: "Saturday Night Live") is 36. Actress Mika Boorem is 27. Actress Maia Mitchell (TV: "The Fosters") is 21. Actress Parker McKenney Posey is 19.

Thought for Today: "The self-hatred that destroys is the waste of unfulfilled promise." — Moss Hart, American playwright and director (1904-1961).

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EPA Begins Review Of Lemberger Superfund Sites
Franklin Township, Wisconsin

The U.S. Environmental Protection Agency is conducting a five-year review of the Lemberger Landfill and Lemberger Transport & Recycling Superfund sites. Both sites are located on State Route 1 north of Whitelaw in Franklin Township. The Superfund law requires regular checkups of sites that have been cleaned up — with waste managed on-site — to make sure the cleanup continues to protect people and the environment. This is the fourth five-year review of this site.

Contamination at the Lemberger Landfill was caused by volatile organic compounds such as vinyl chloride. EPA's cleanup consisted of a landfill cap, site fence, gas-venting system, slurry wall (underground barrier) with leachate (water seeping through waste) collection and off-site disposal, groundwater pump-and-treat system, and site and groundwater use restrictions.

Contamination at the Lemberger Transport & Recycling site was also caused by VOCs. EPA's cleanup consisted of a landfill cap, site fence, gas-venting system, drum excavation and disposal, groundwater pump-and-treat system, and groundwater use restrictions.

Private and groundwater monitoring wells in the area have been regularly sampled since 1997.

More information is available at the Manitowoc Public Library, 707 Quay St., the Whitelaw Village Hall, 147 W. Menasha Ave., www.epa.gov/region5/cleanup/lembergerlandfill, and www.epa.gov/region5/cleanup/lembergertransport. The review should be completed by July 2015.

The five-year review is an opportunity for you to tell EPA about site conditions and any concerns you have. Contact:

Susan Pastor Community Involvement Coordinator 312-353-1325 pastor.susan@epa.gov	Demaree Collier Remedial Project Manager 312-886-0214 collier.demaree@epa.gov
--	--

You may call the EPA toll-free at 800-621-8431, 8:30 a.m. to 4:30 p.m., weekdays.

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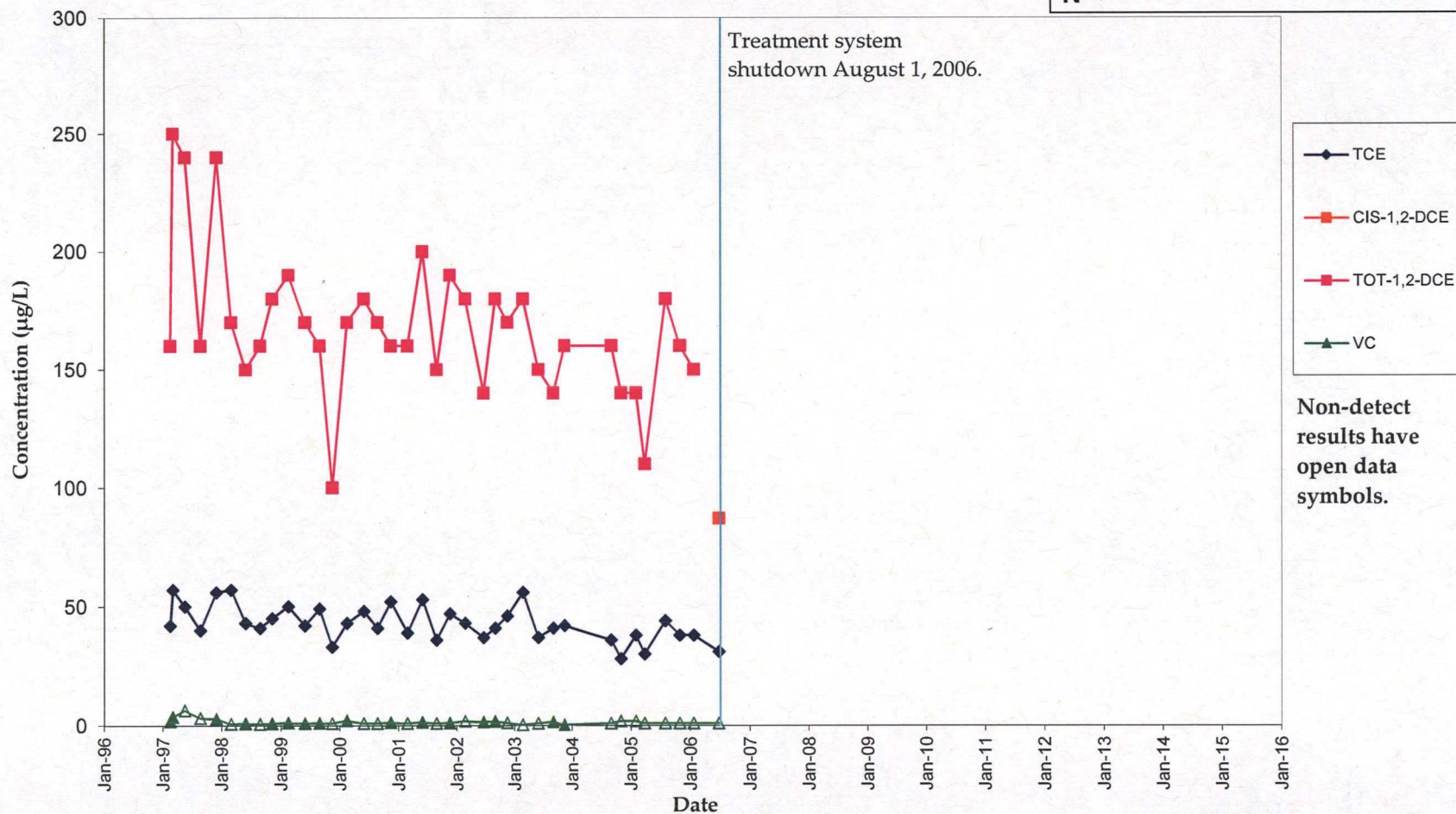
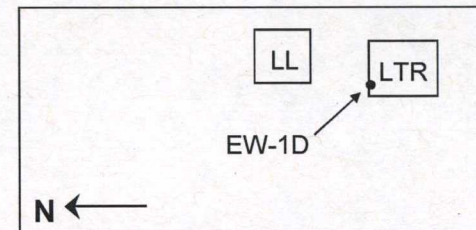
Sunday's In Life! Weekly advice on what's new and how to prep for seasonal planting.

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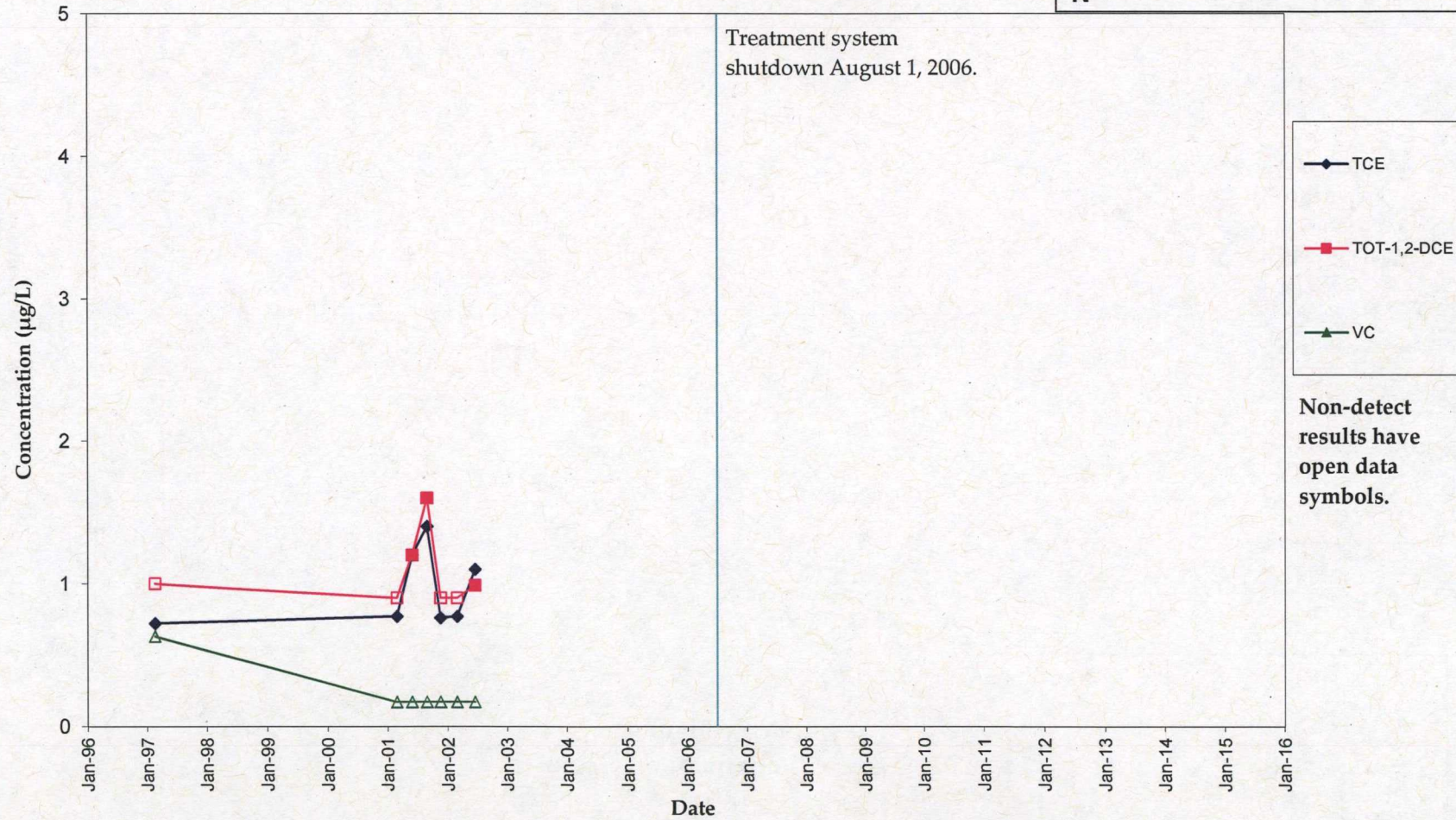
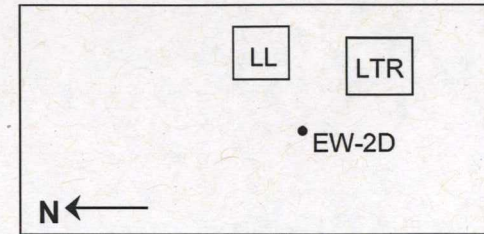
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Attachment 6 – Trend Plots

EW-01D VOC Concentration Trends Lemberger Landfill



EW-02D
VOC Concentration Trends
Lemberger Landfill



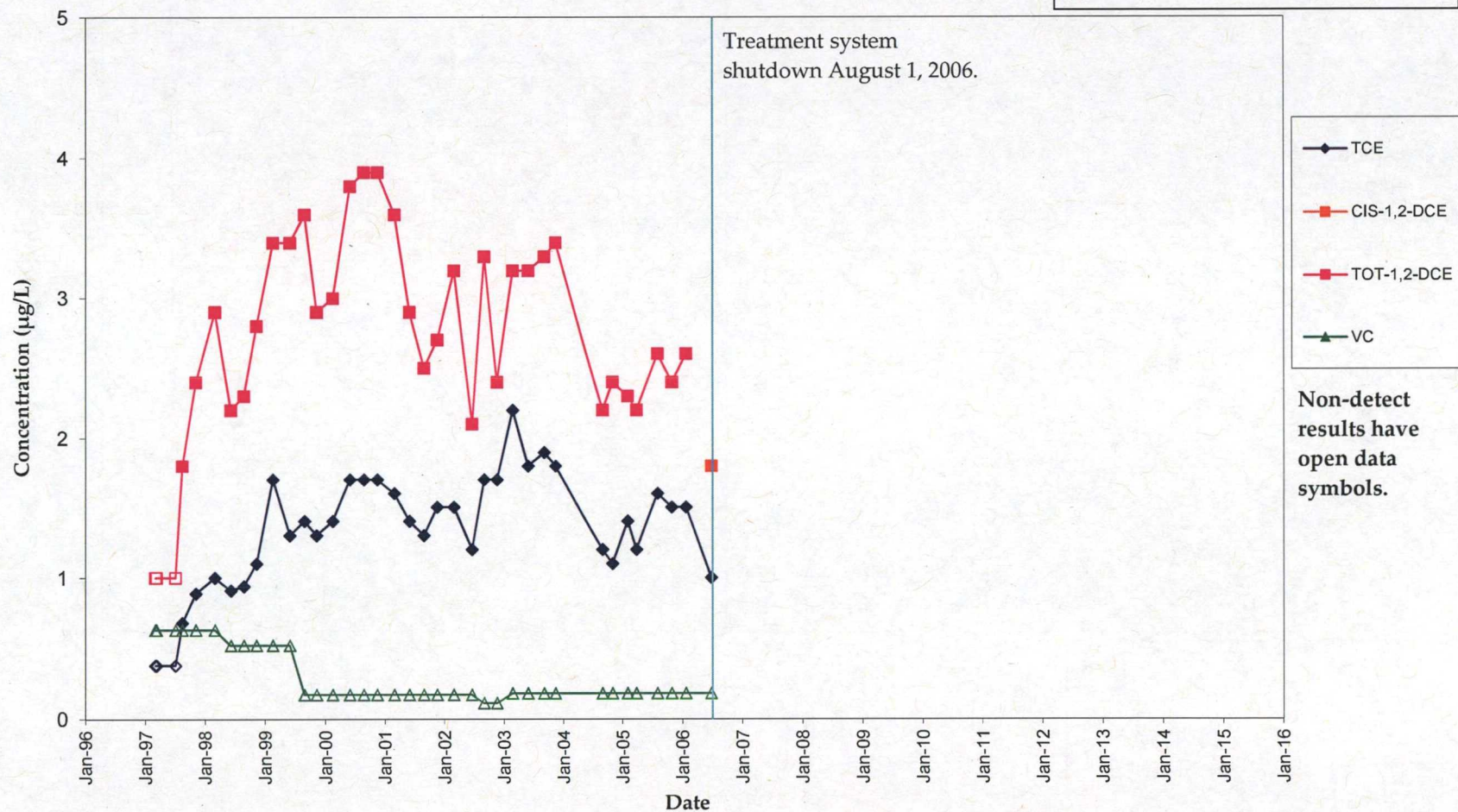
EW-03D
VOC Concentration Trends
Lemberger Landfill

• EW-3D

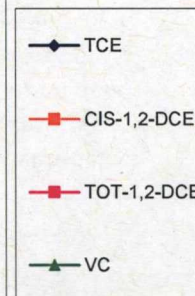
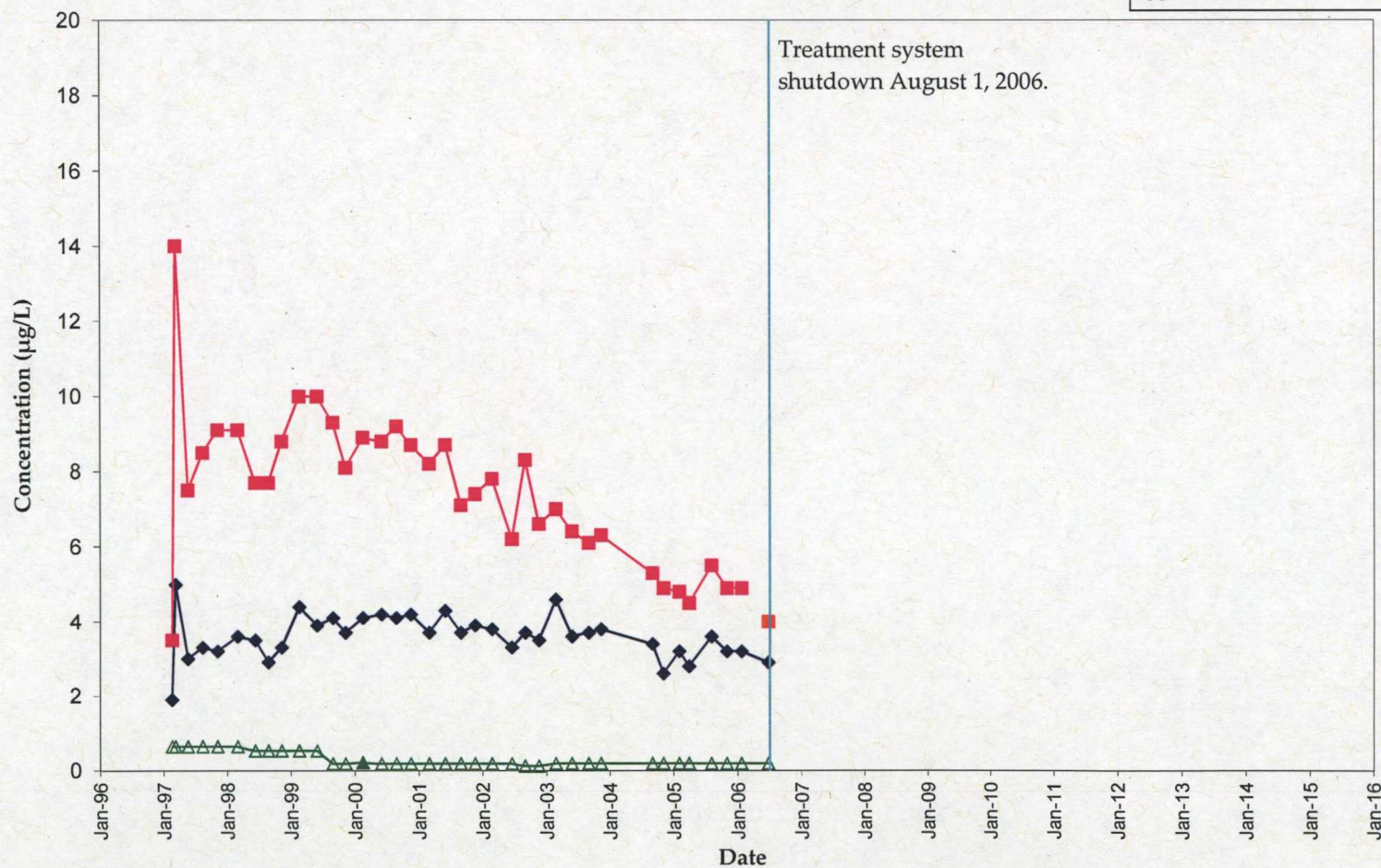
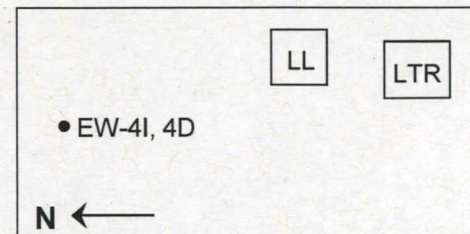
LL

LTR

N ←

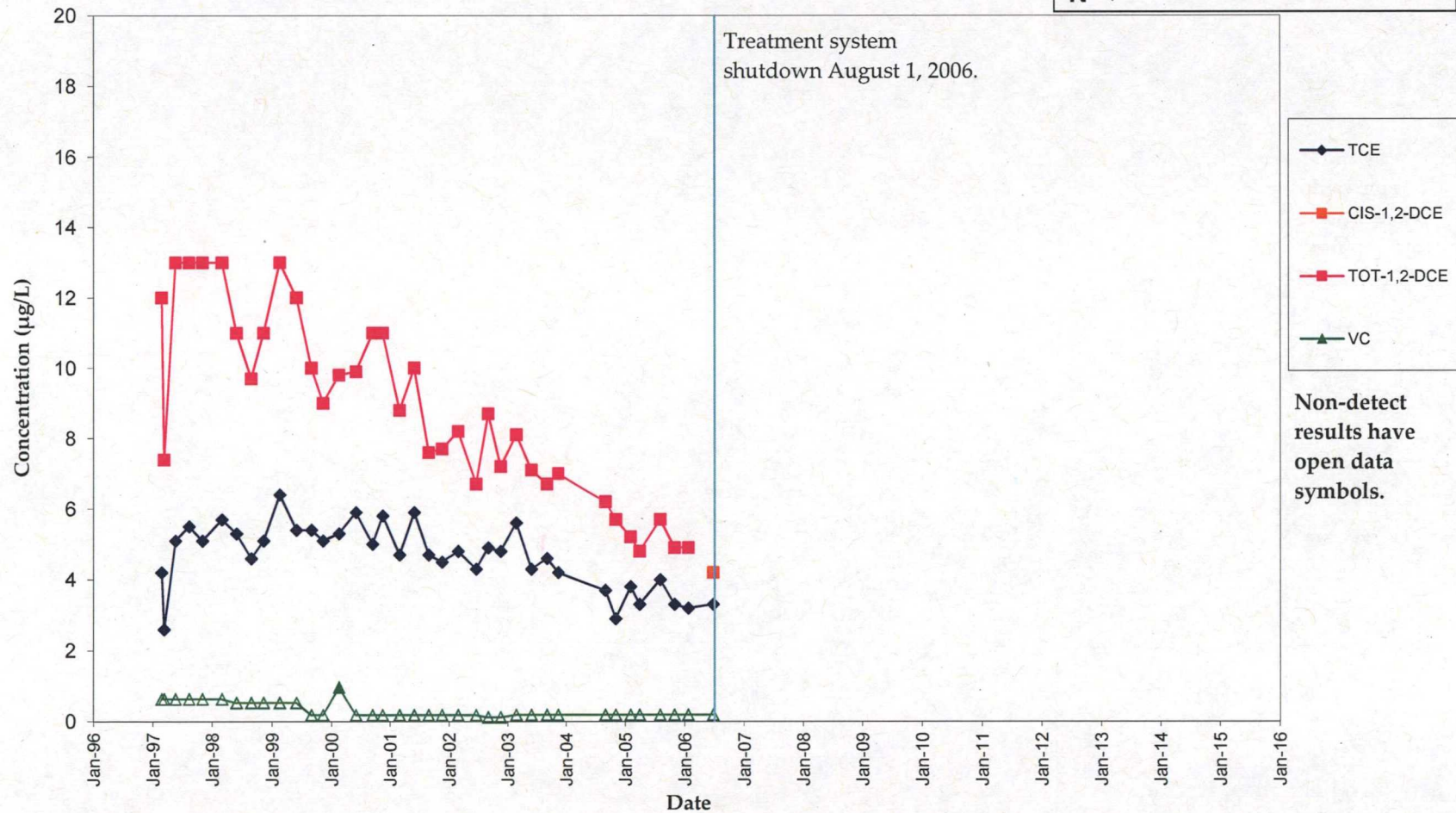
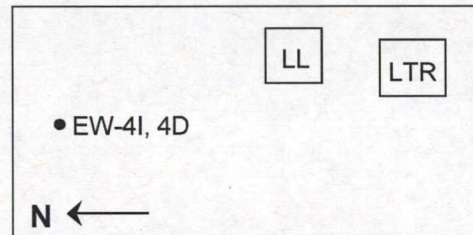


EW-04D
VOC Concentration Trends
Lemberger Landfill

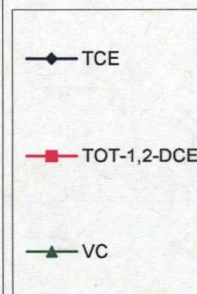
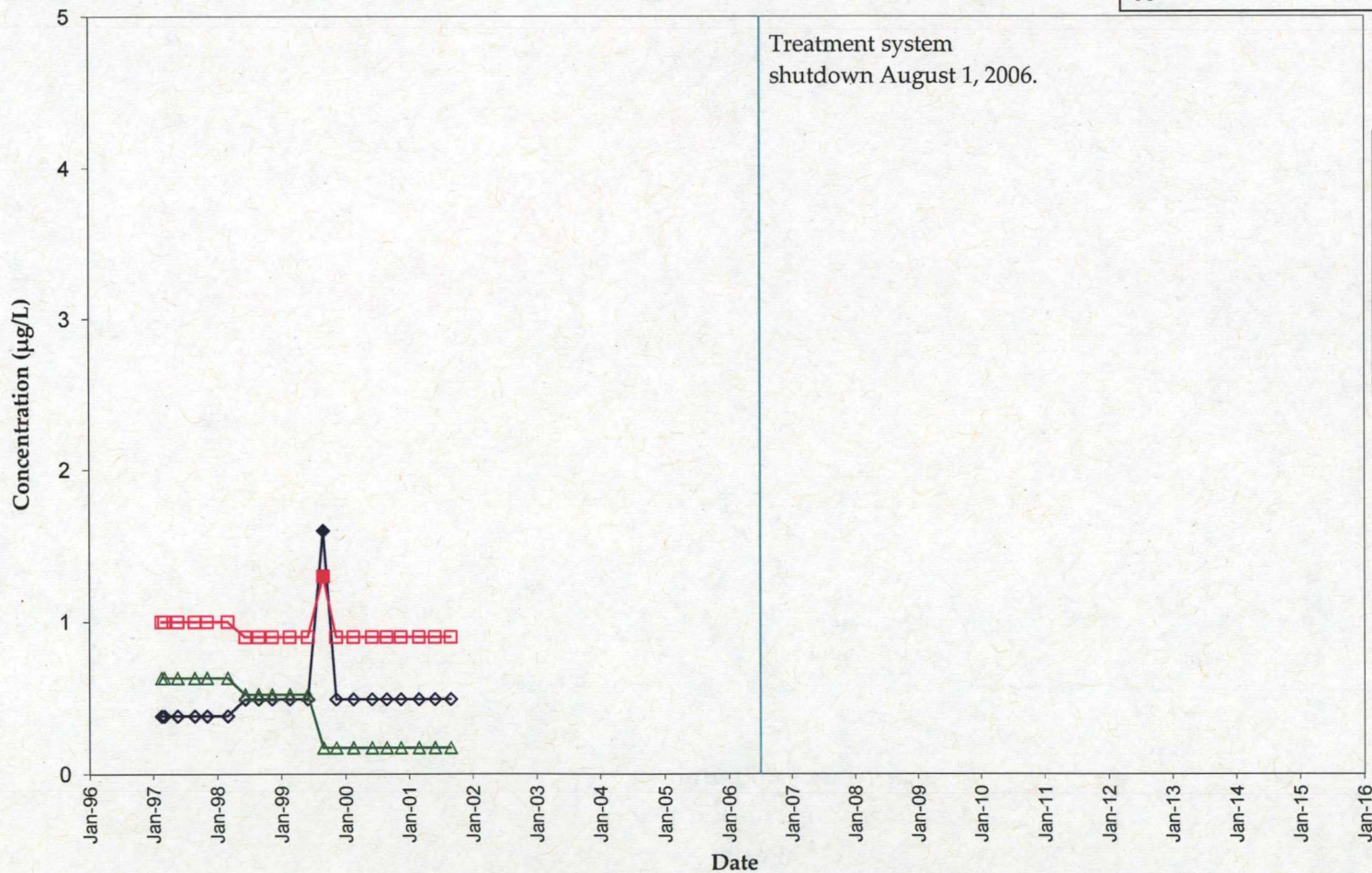
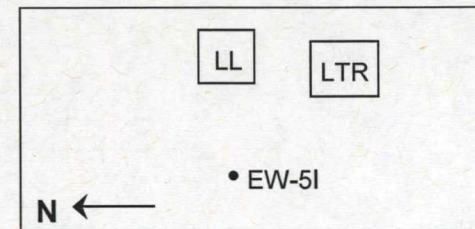


Non-detect
results have
open data
symbols.

EW-04I
VOC Concentration Trends
Lemberger Landfill



EW-05I VOC Concentration Trends Lemberger Landfill

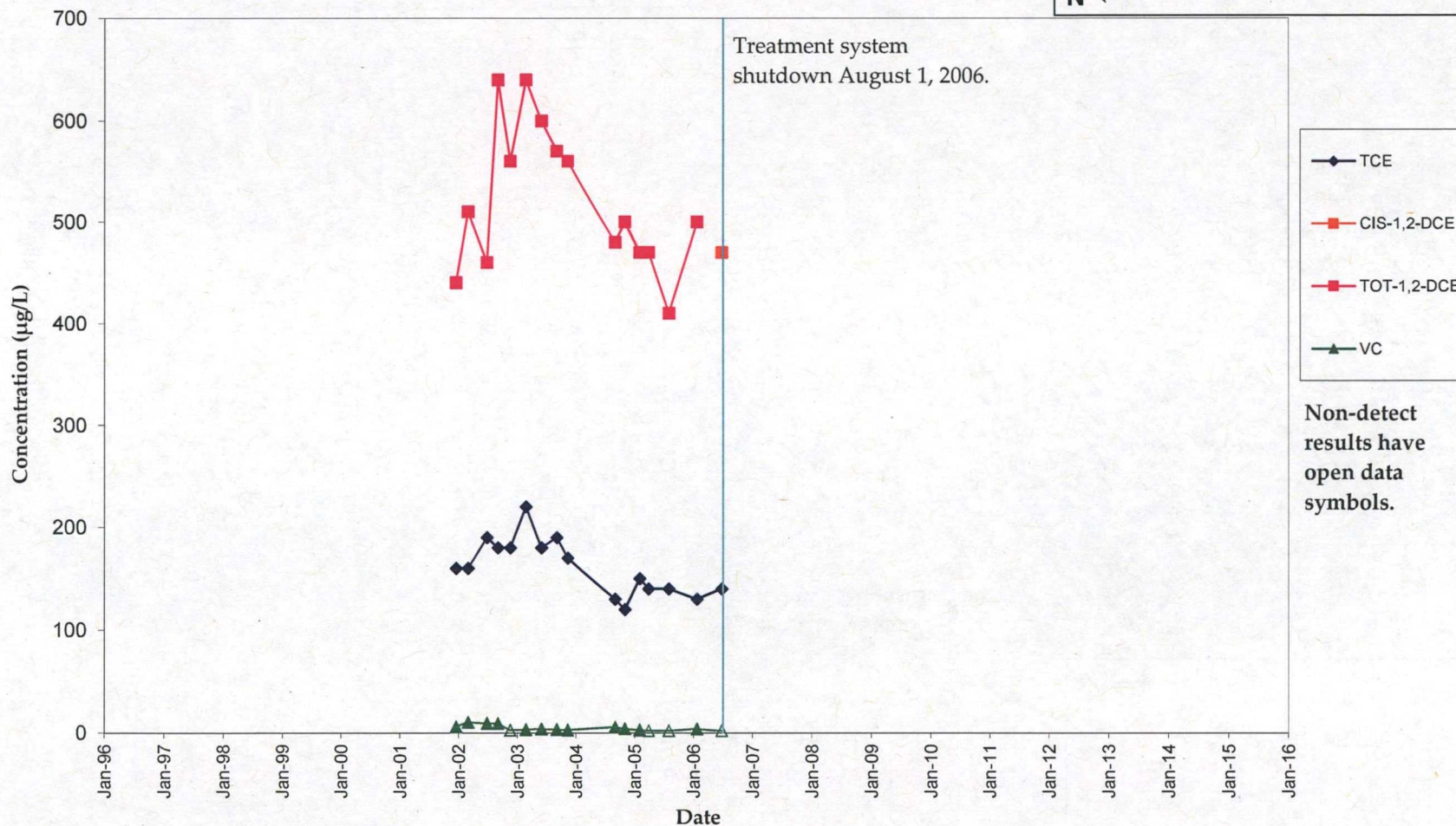


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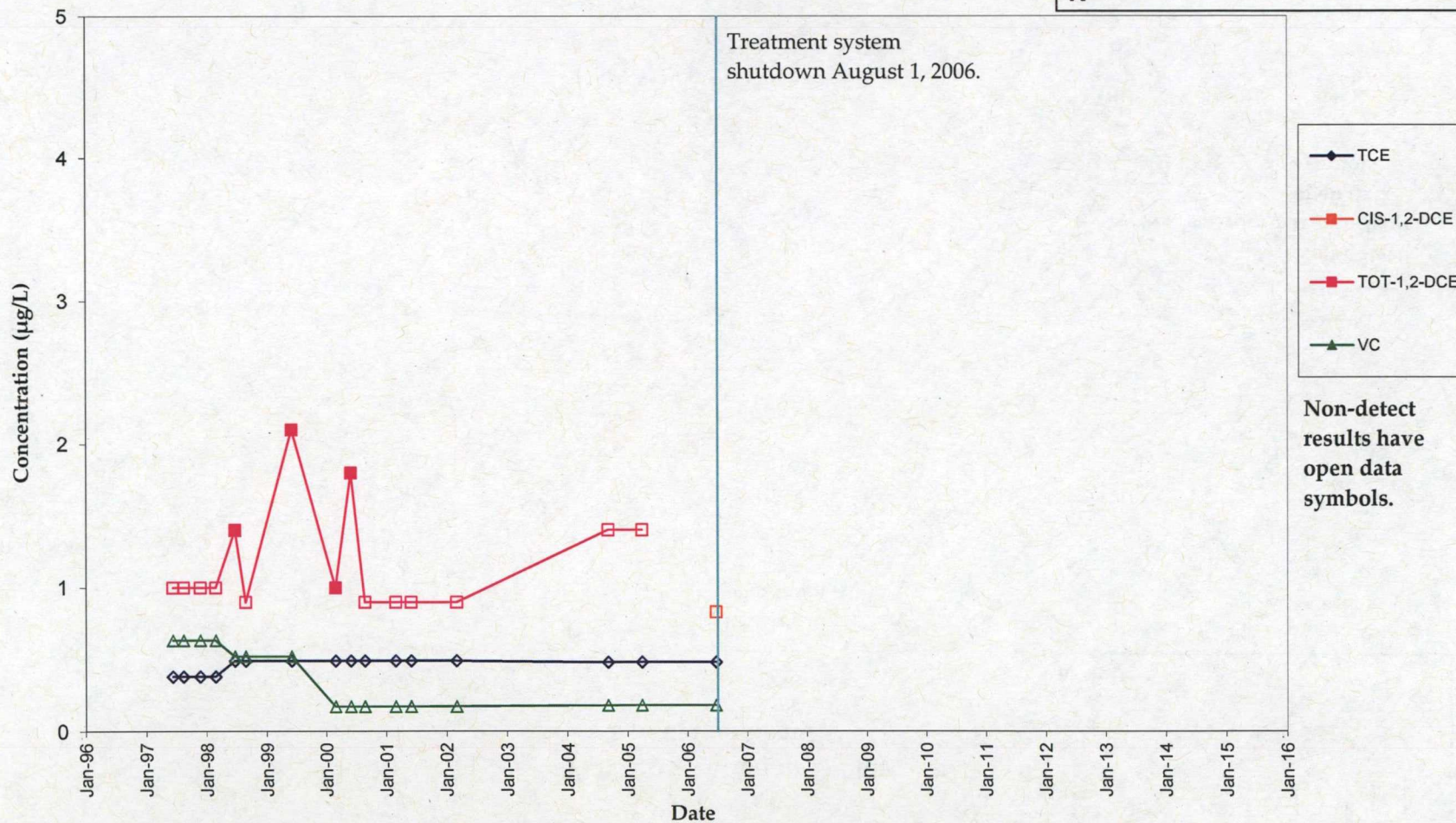
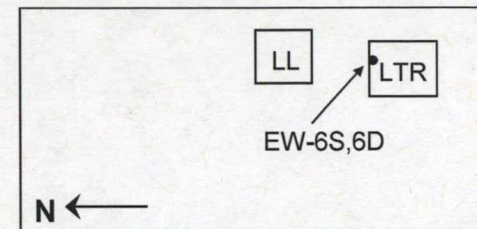
**EW-06D
VOC Concentration Trends
Lemberger Landfill**

LL → LTR
EW-6S,6D

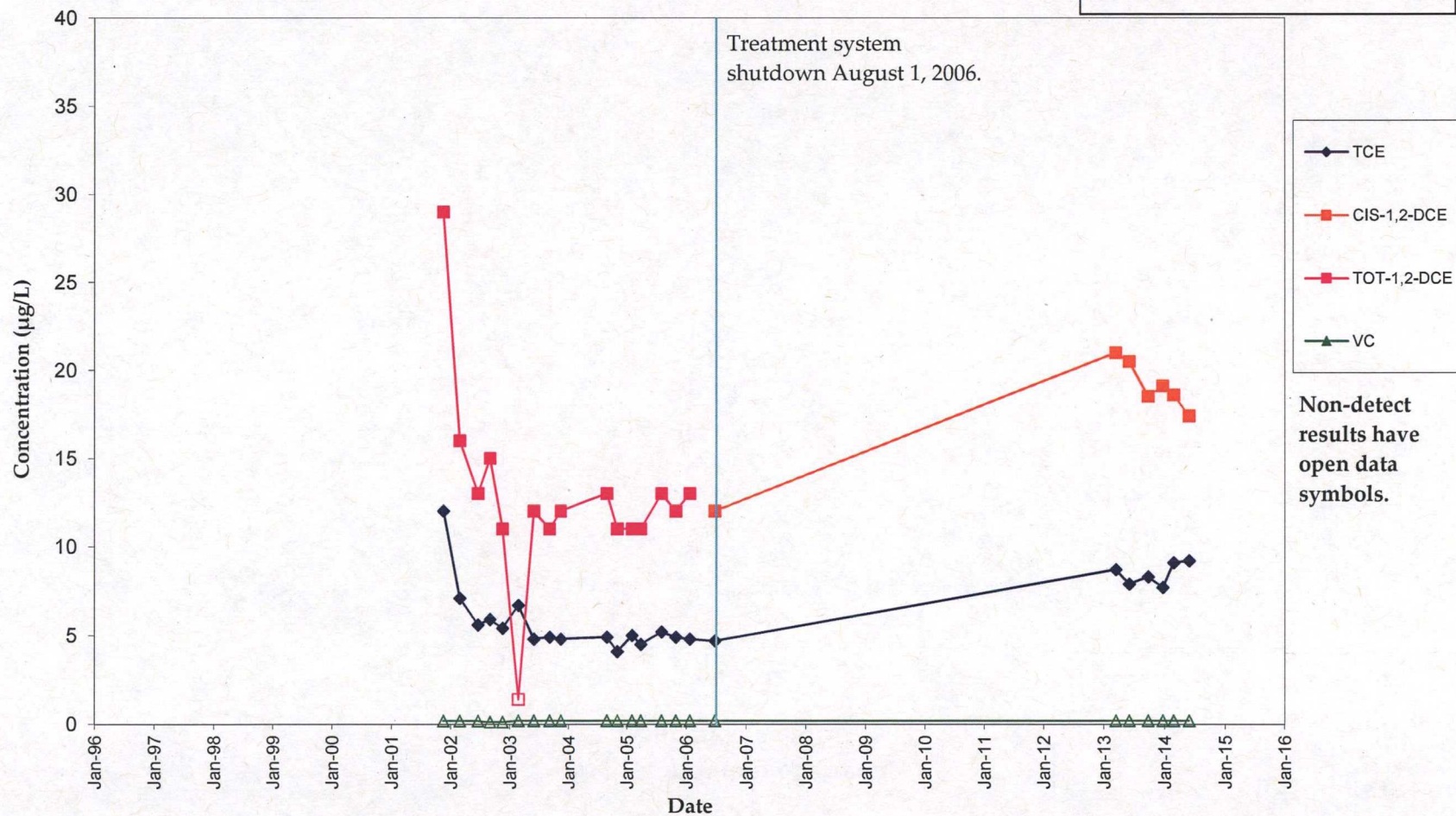
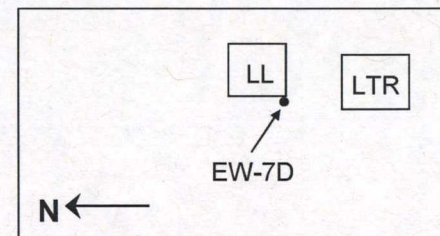
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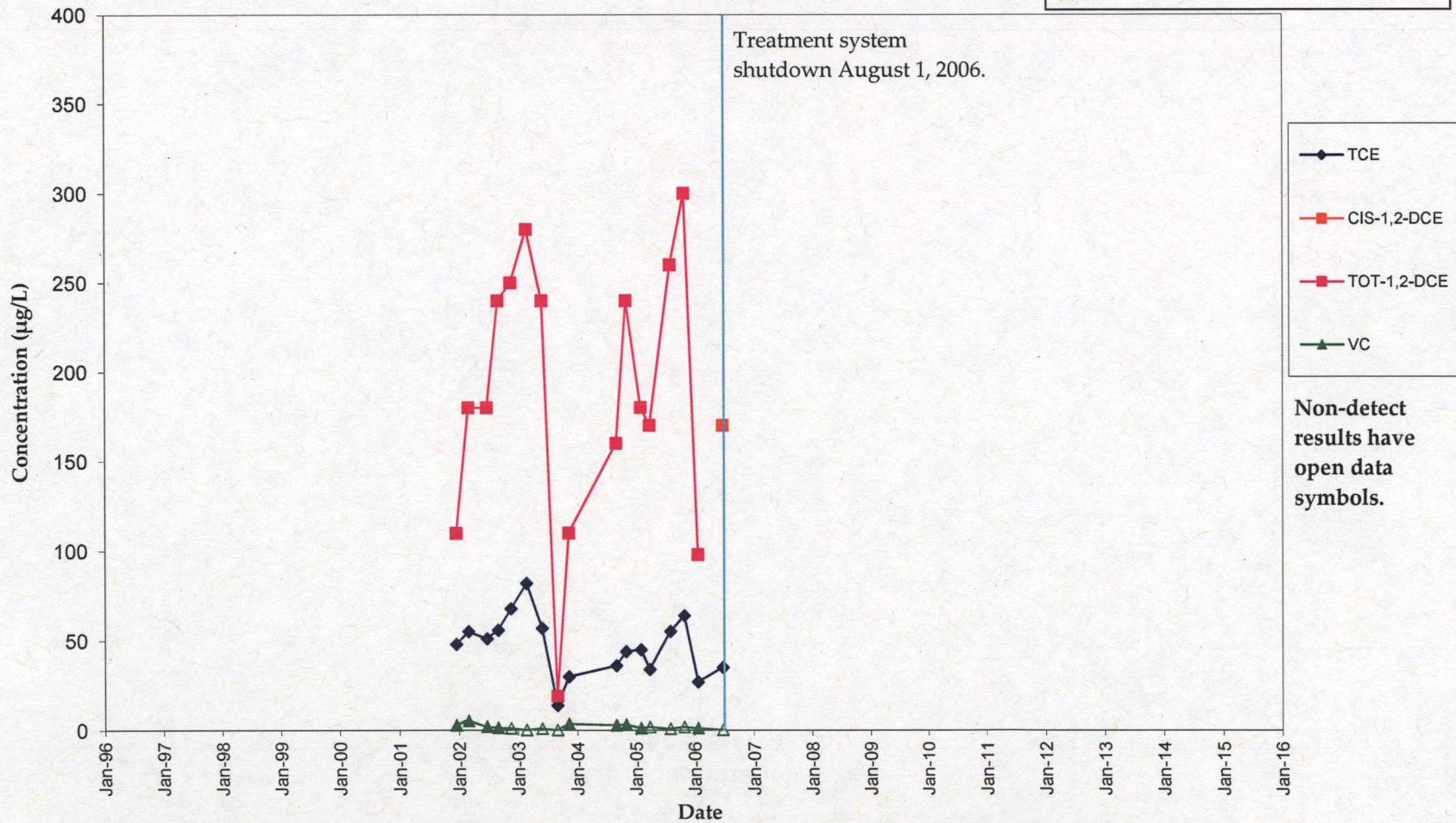
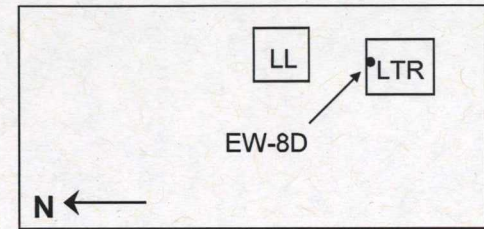
EW-06S VOC Concentration Trends Lemberger Landfill



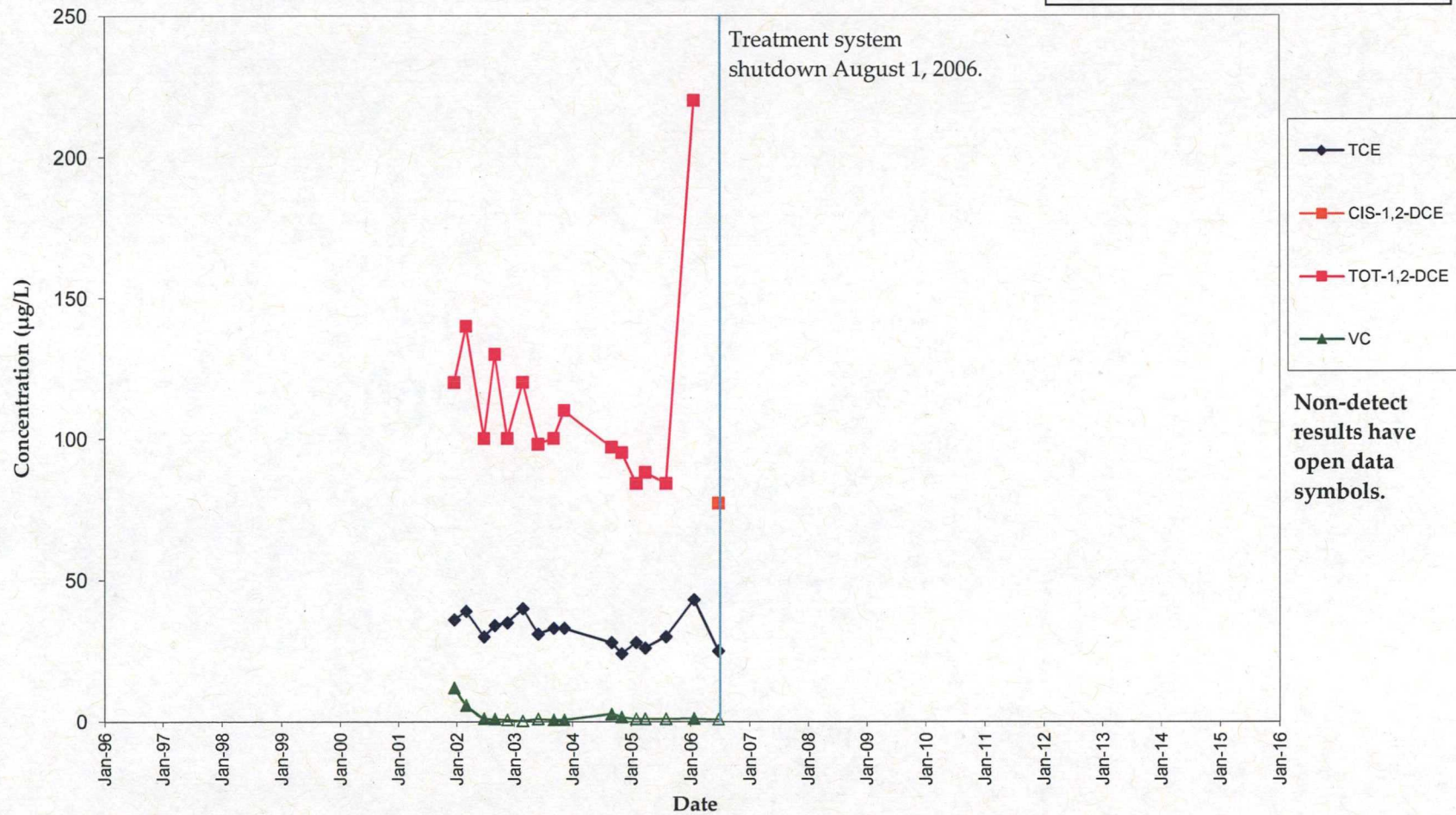
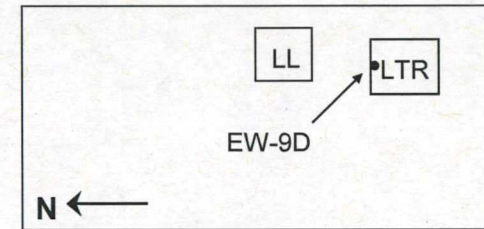
EW-07D
VOC Concentration Trends
Lemberger Landfill



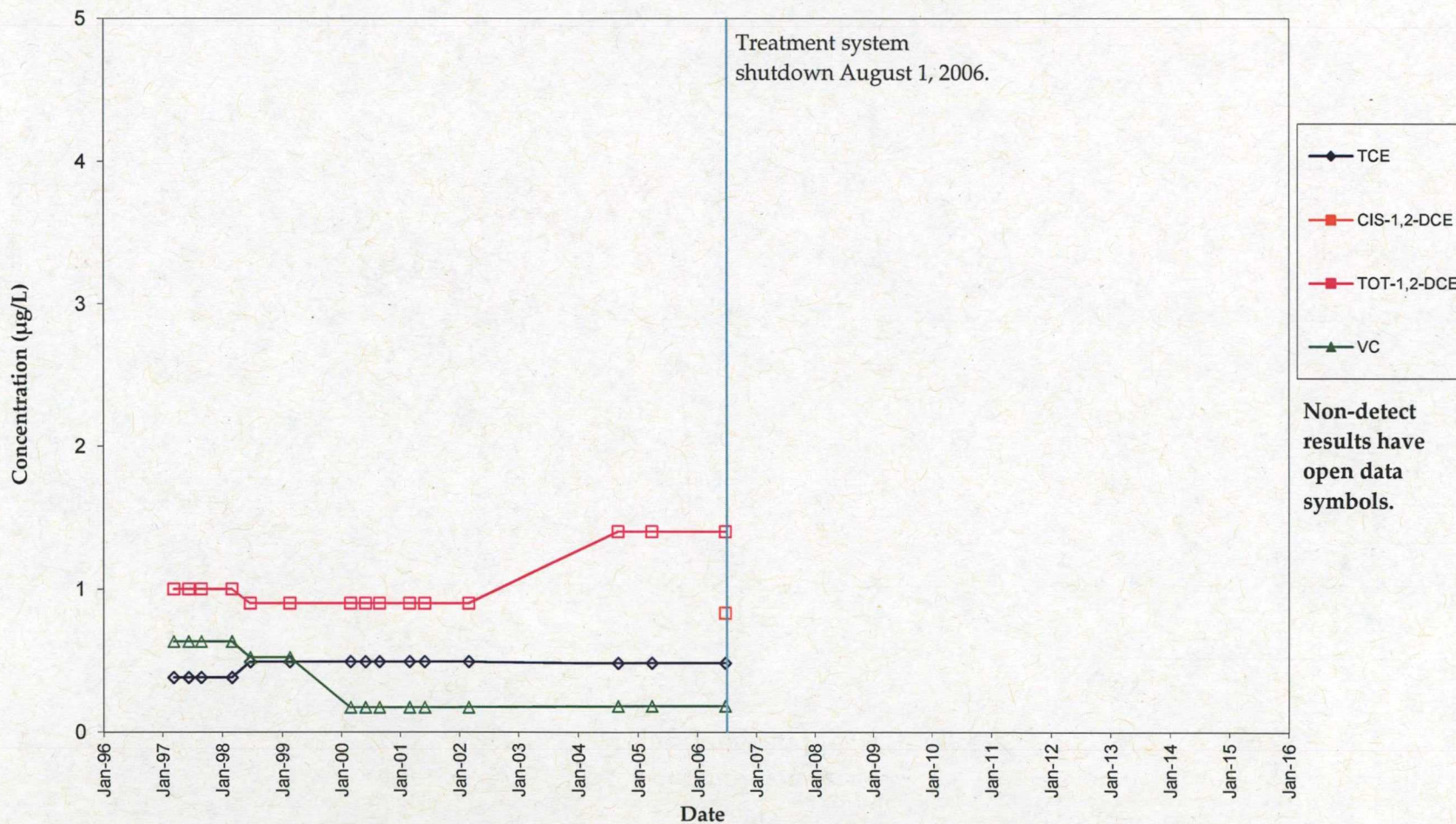
EW-08D VOC Concentration Trends Lemberger Landfill



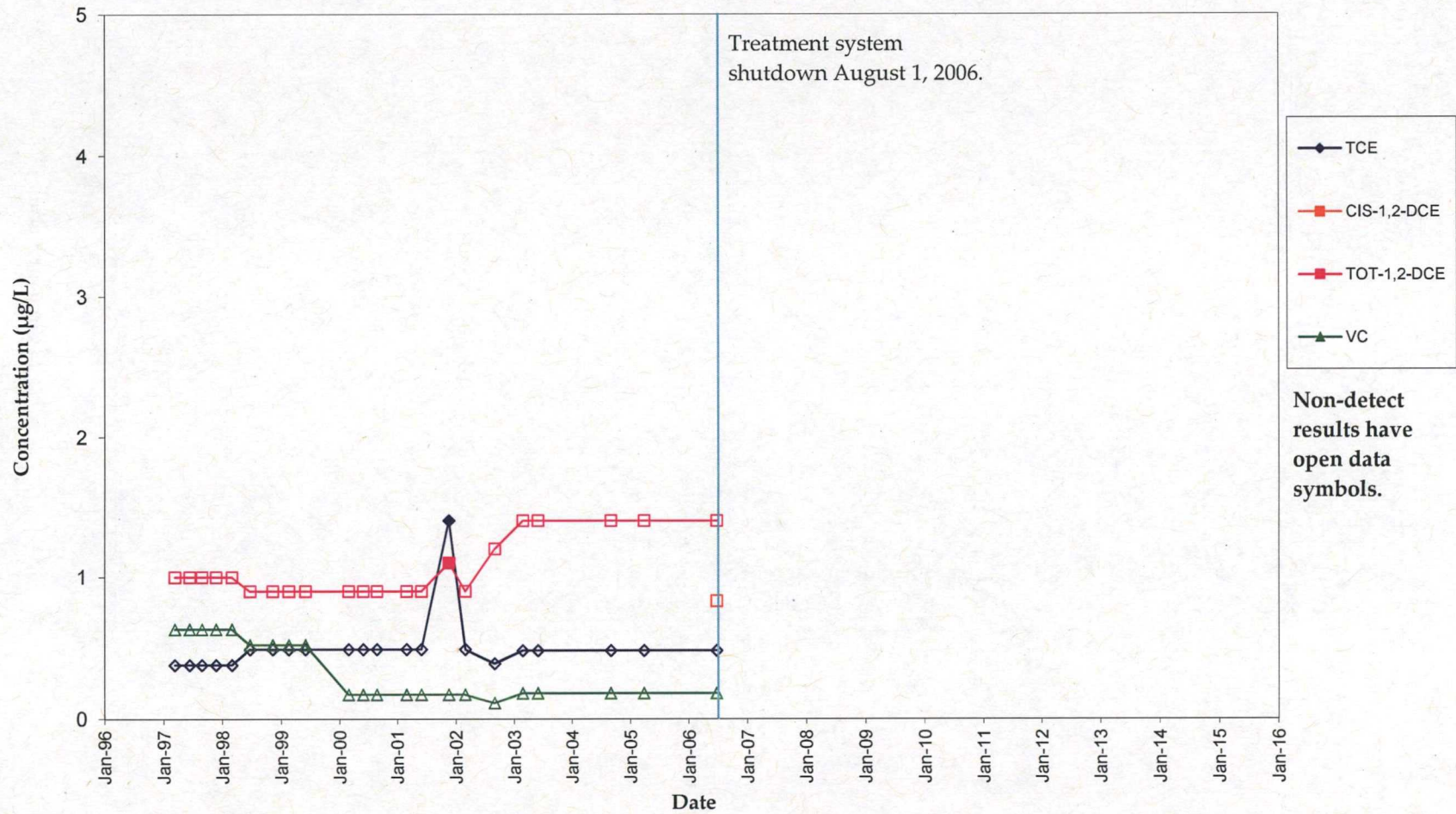
EW-09D
VOC Concentration Trends
Lemberger Landfill



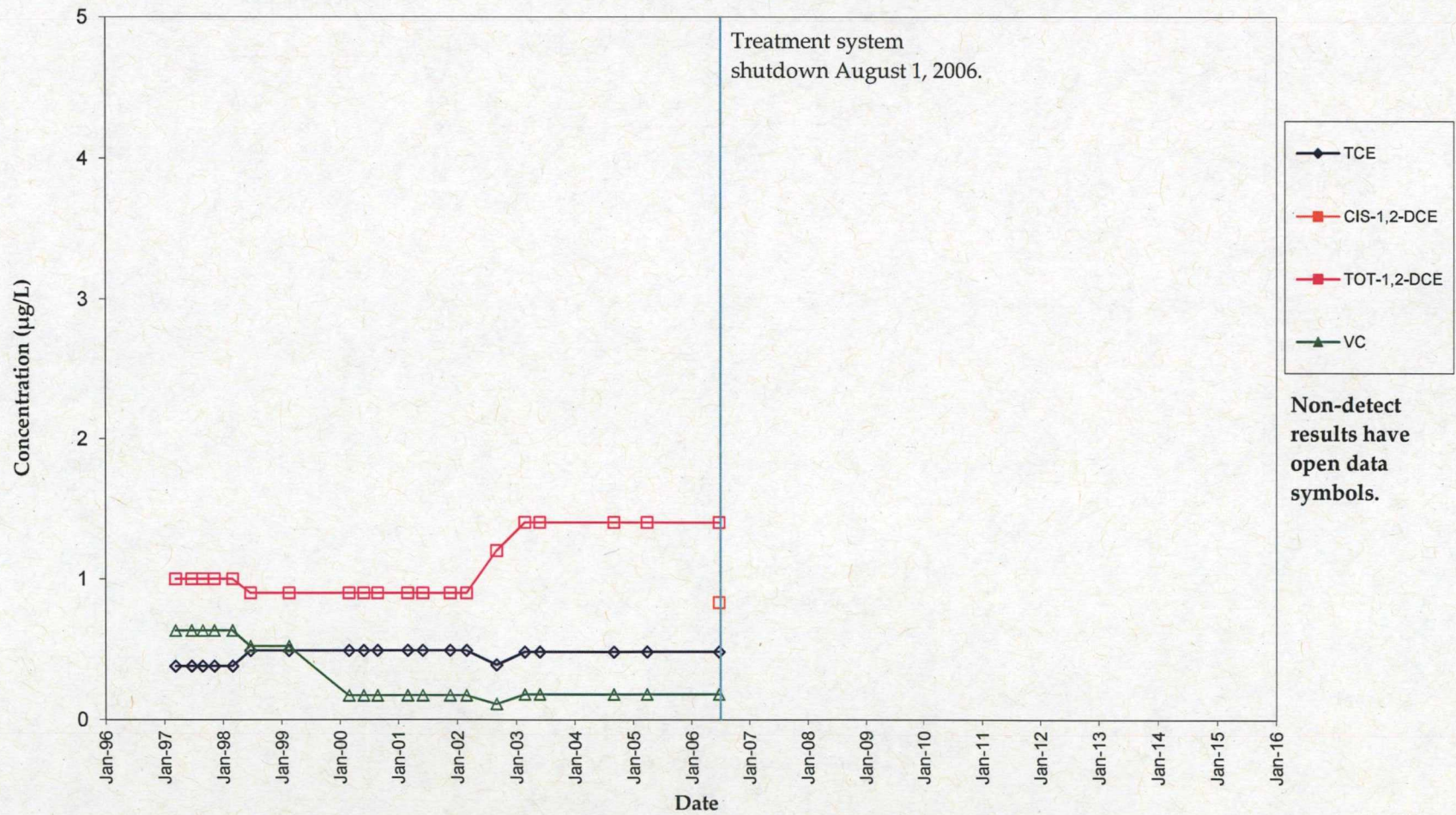
GWC-1 VOC Concentration Trends Lemberger Landfill



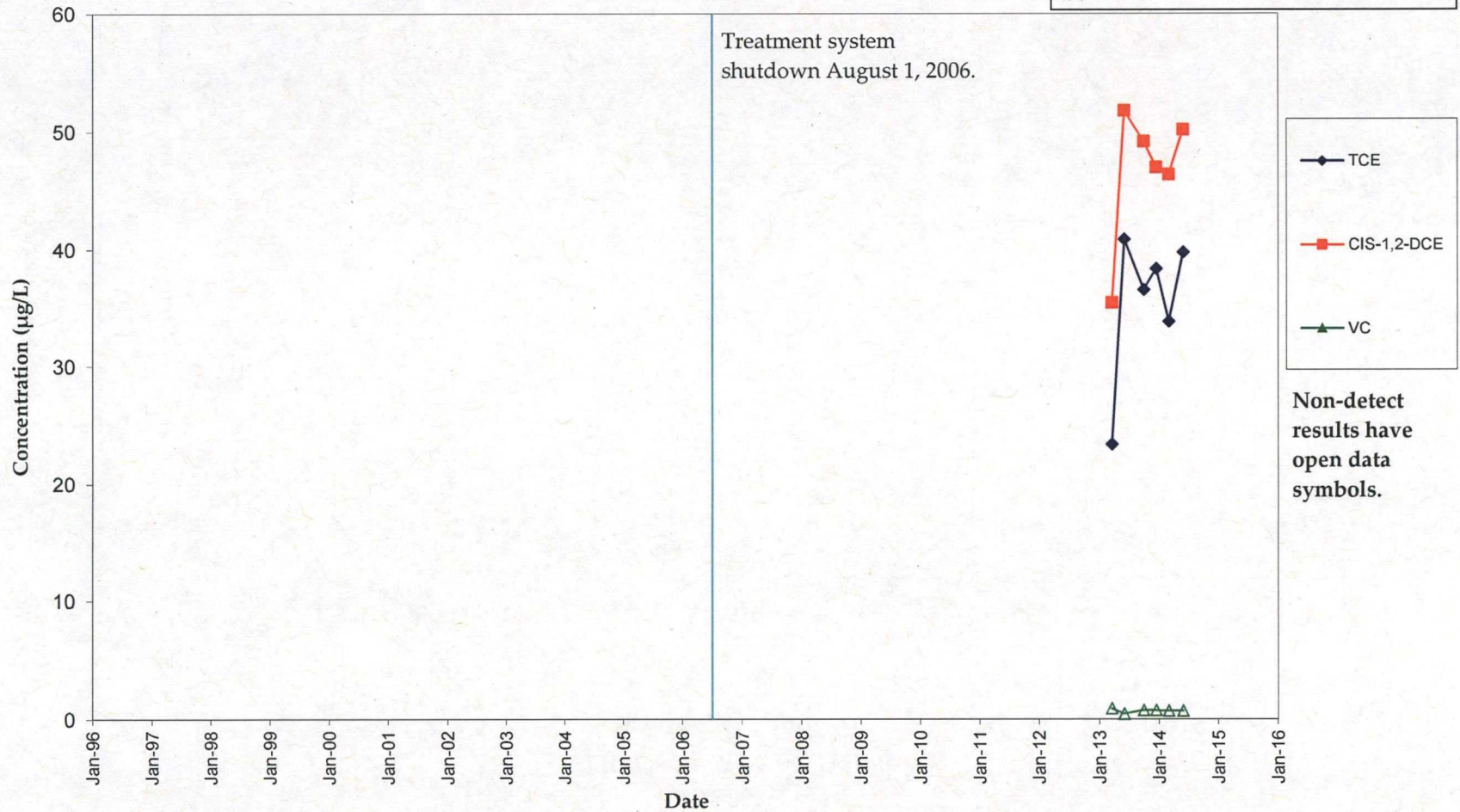
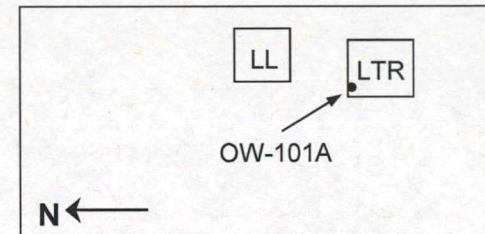
GWC-2 VOC Concentration Trends Lemberger Landfill



GWC-3 VOC Concentration Trends Lemberger Landfill



OW-101A VOC Concentration Trends Lemberger Landfill

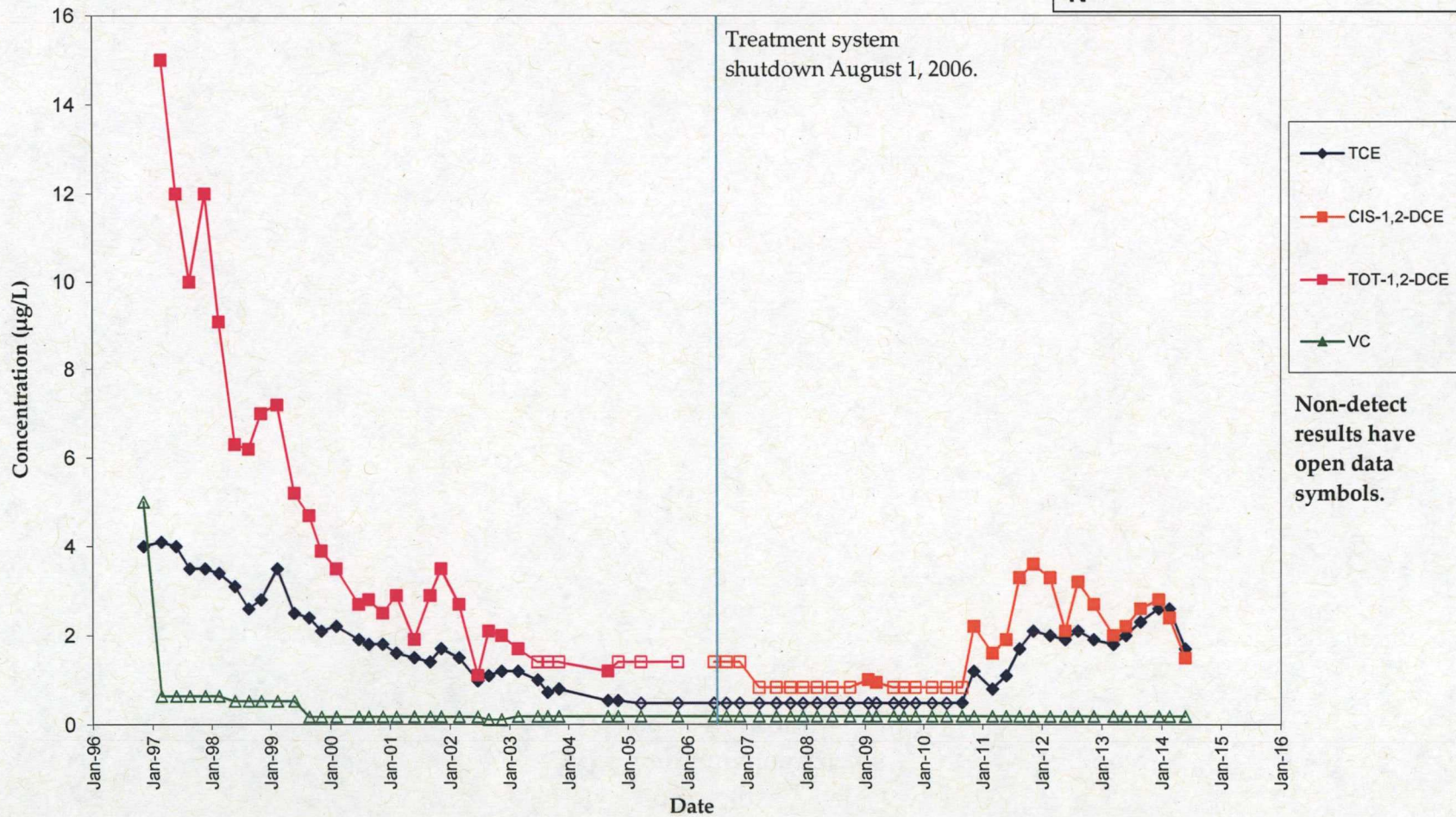


RM-002D
VOC Concentration Trends
Lemberger Landfill

LL LTR

• RM-2I, 2D

N ←



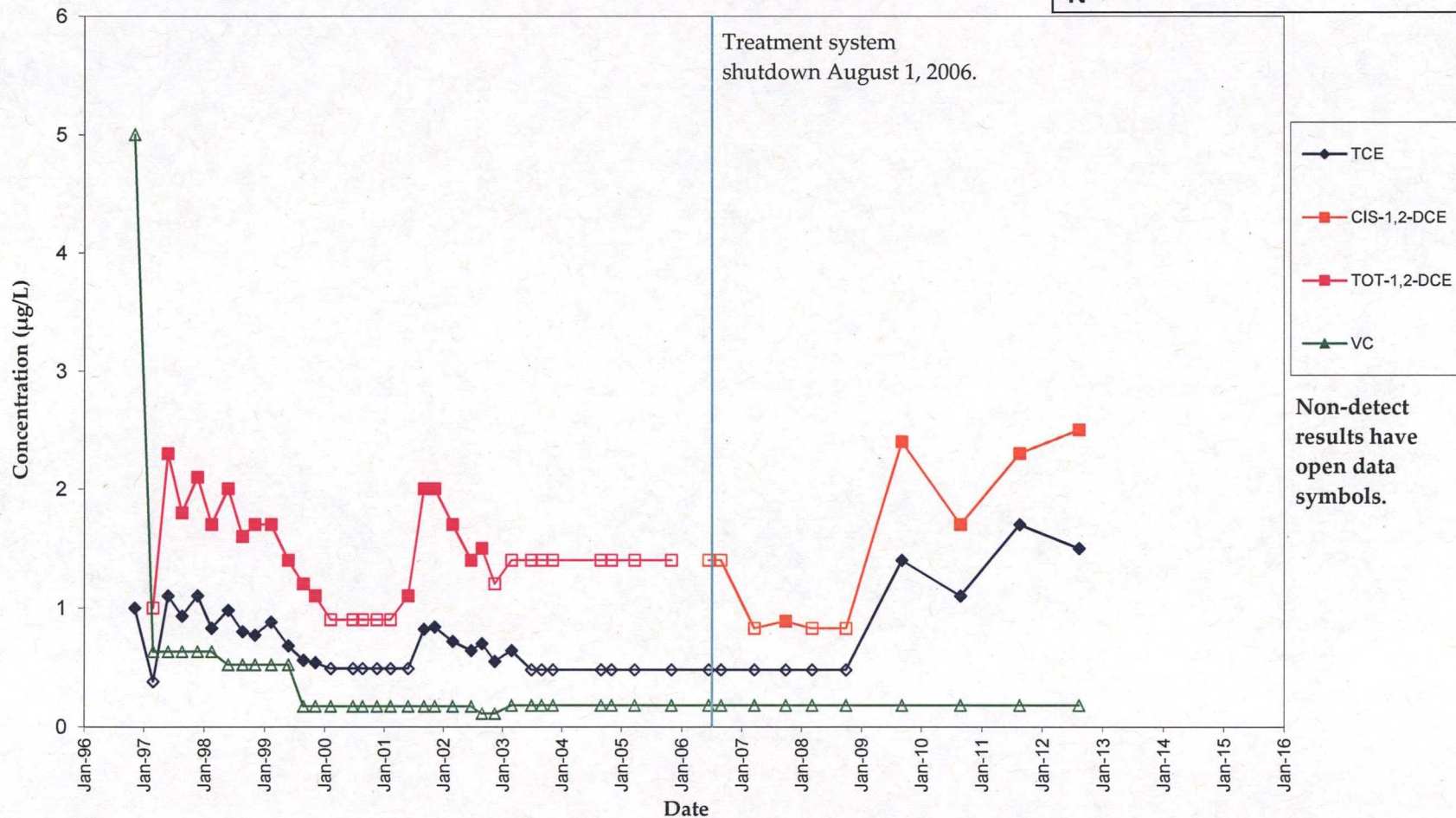
RM-002I
VOC Concentration Trends
Lemberger Landfill

LL

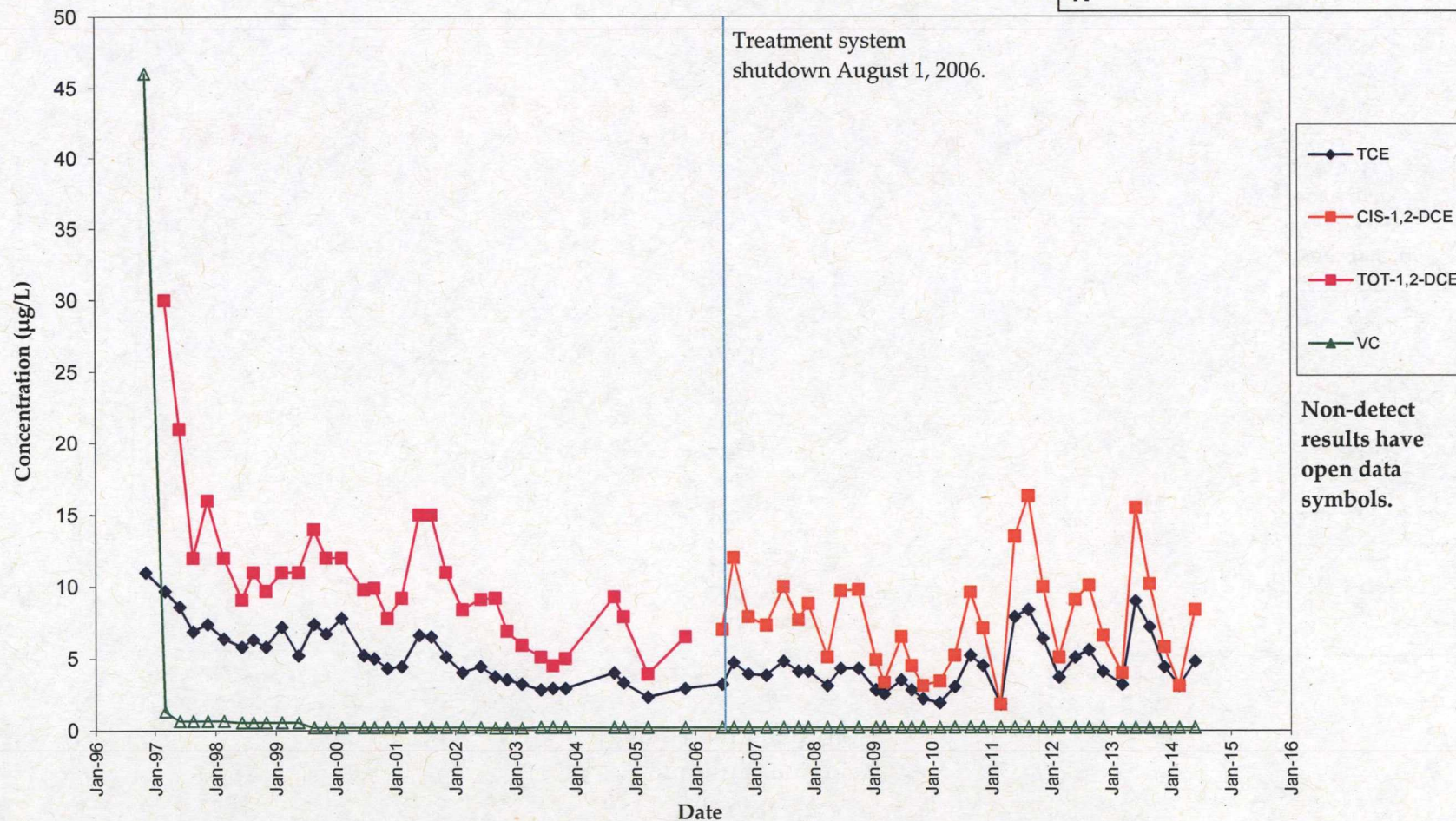
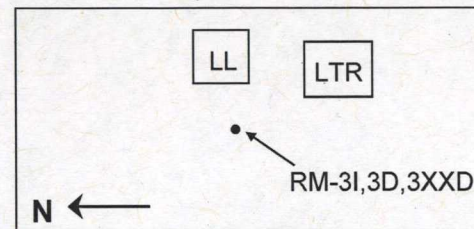
LTR

• RM-2I, 2D

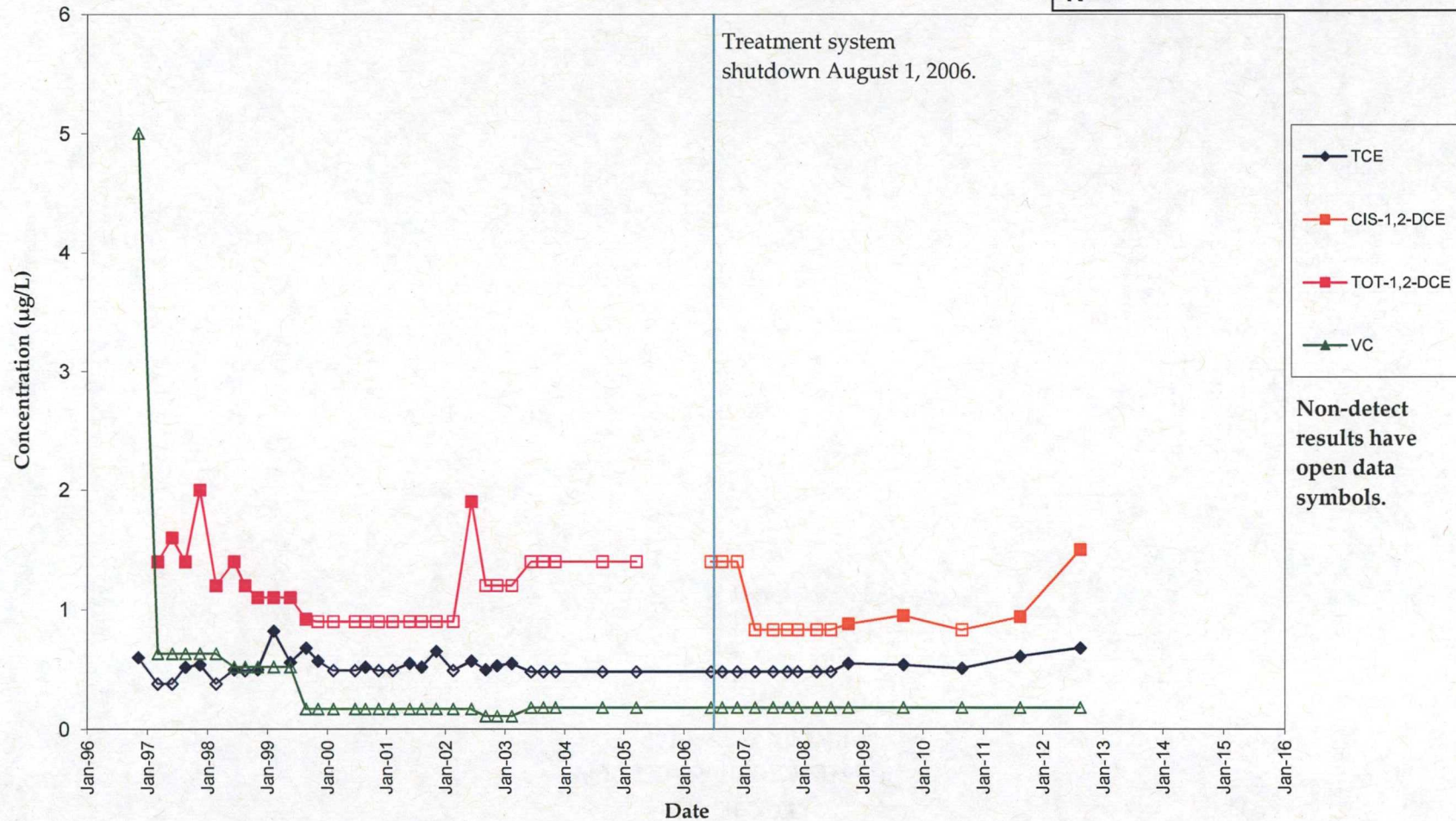
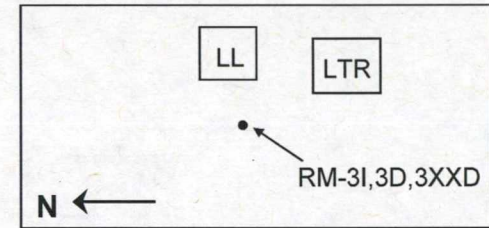
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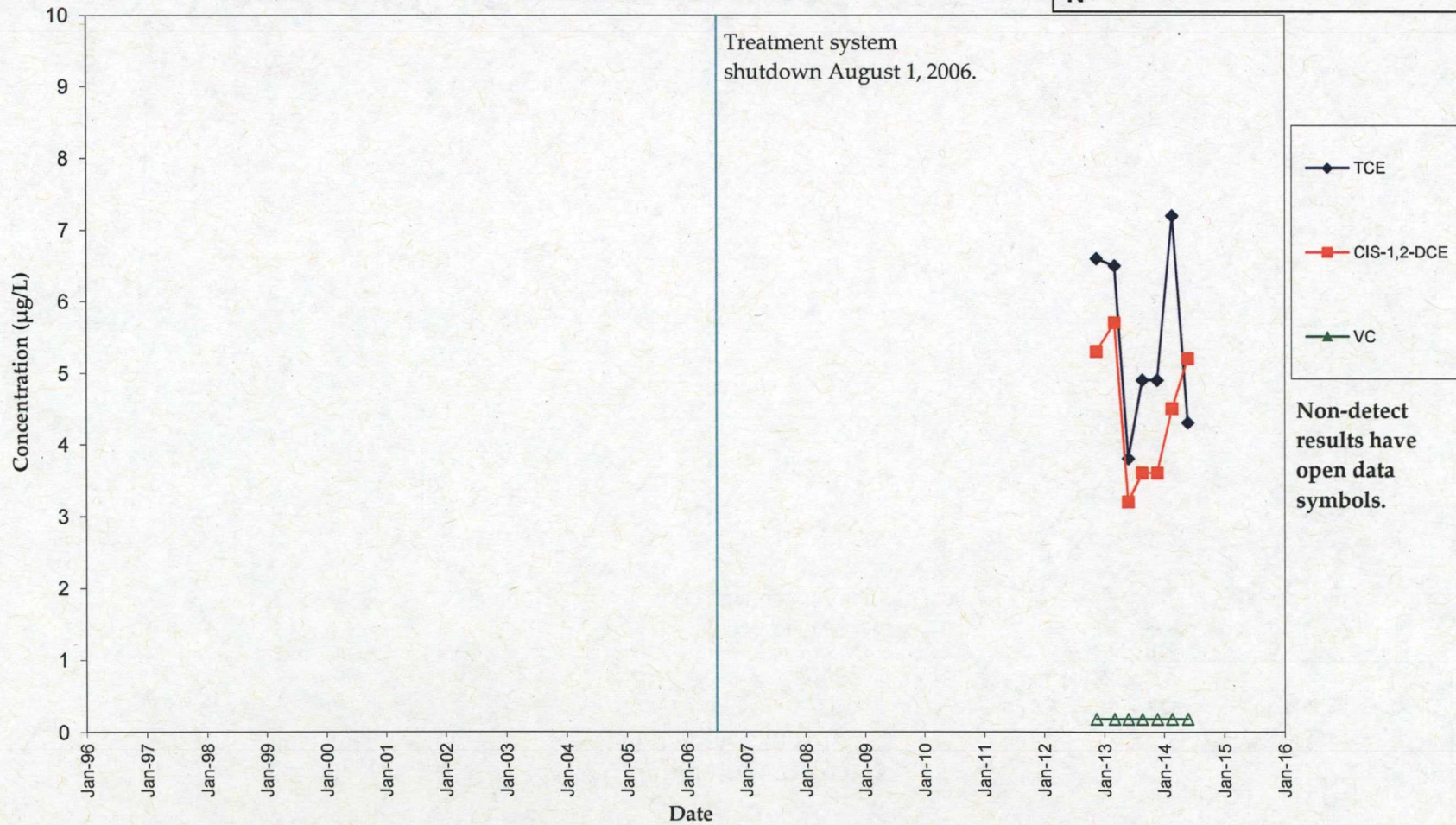
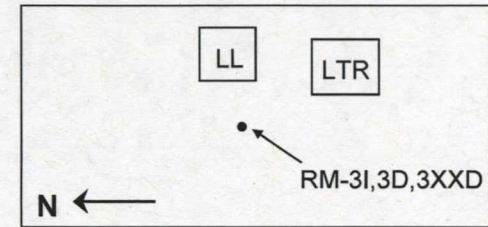
RM-003D
VOC Concentration Trends
Lemberger Landfill



RM-003I
VOC Concentration Trends
Lemberger Landfill



RM-003XXD VOC Concentration Trends Lemberger Landfill



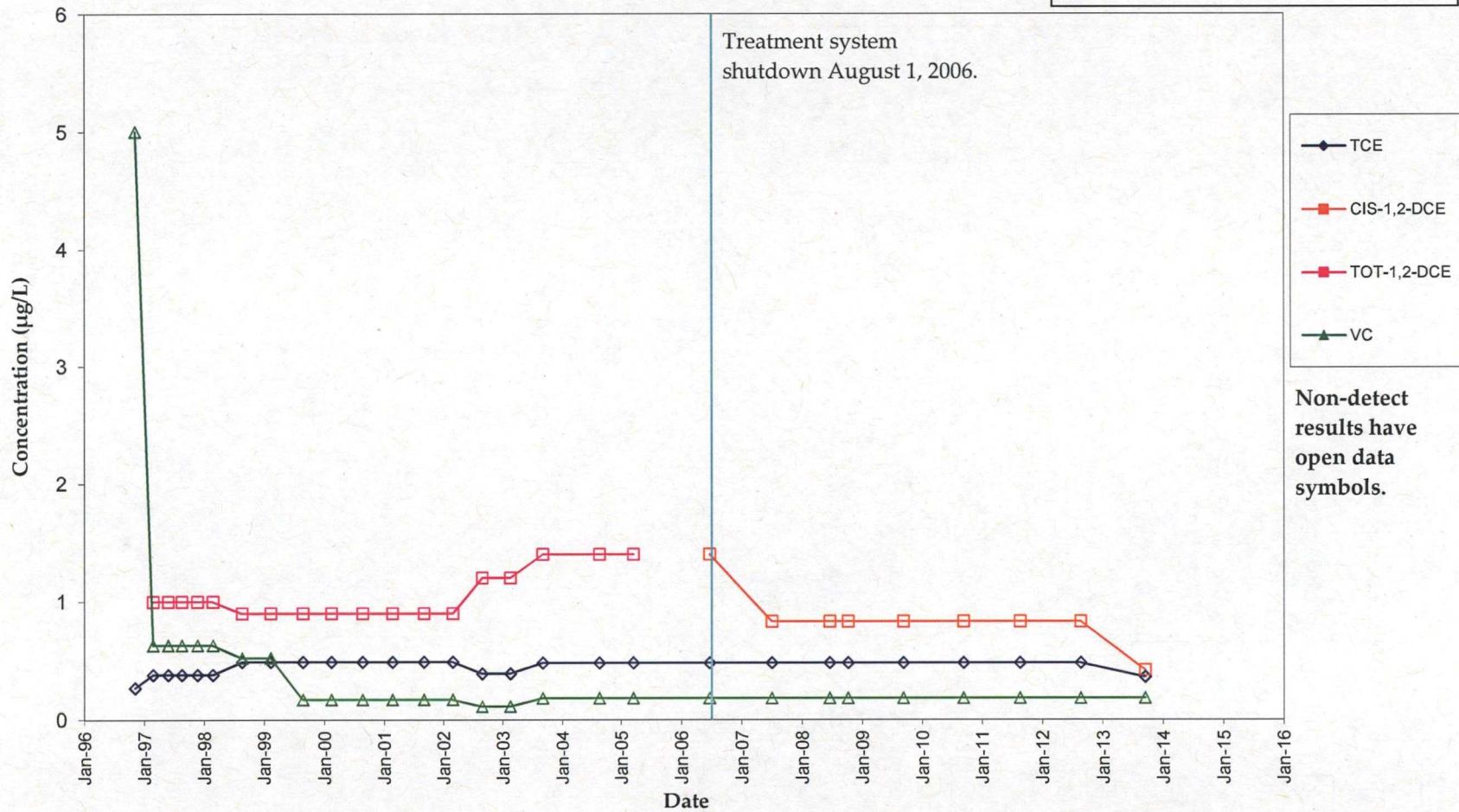
RM-004D
VOC Concentration Trends
Lemberger Landfill

RM-4S, 4D

LL

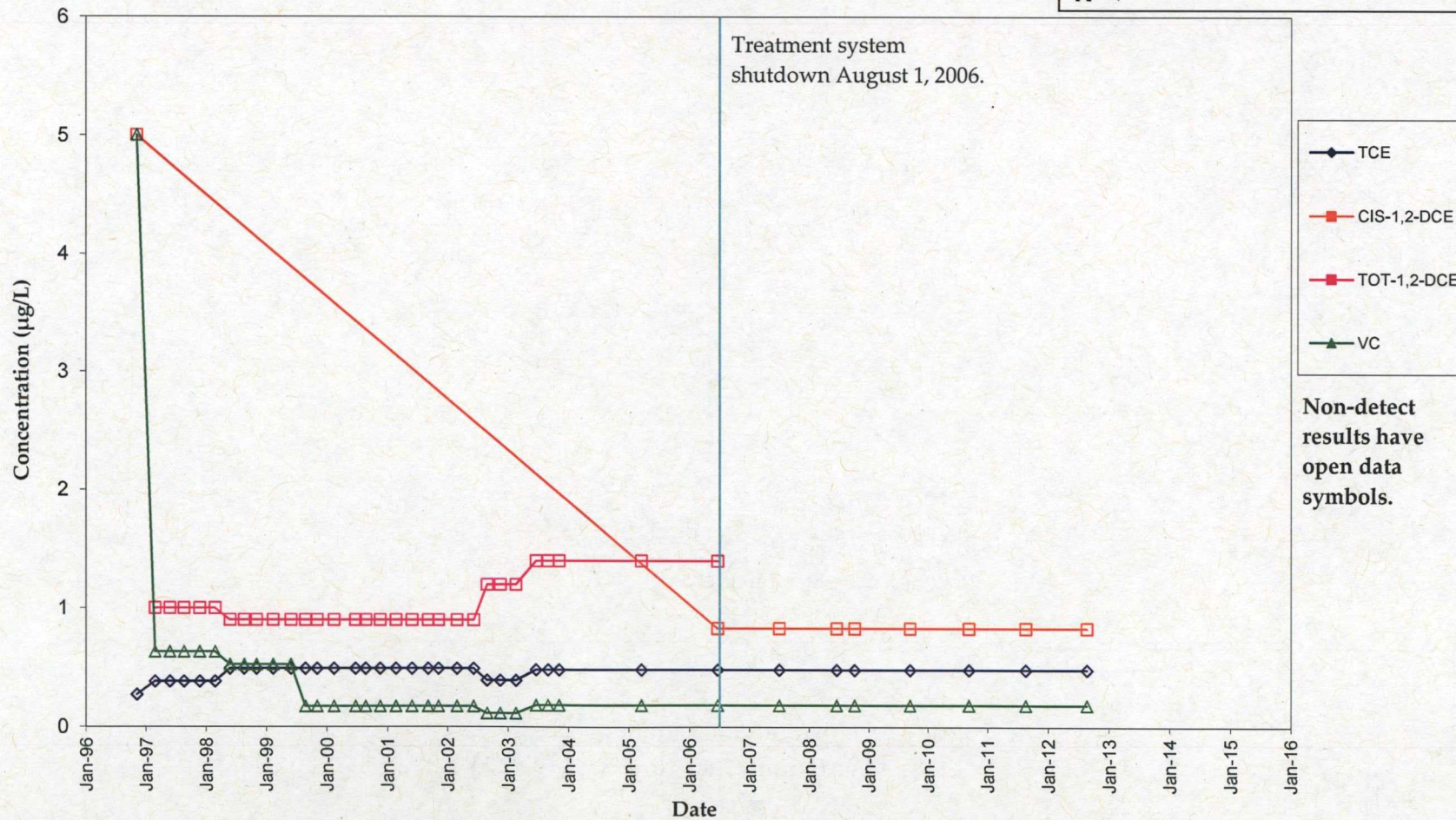
LTR

N ←

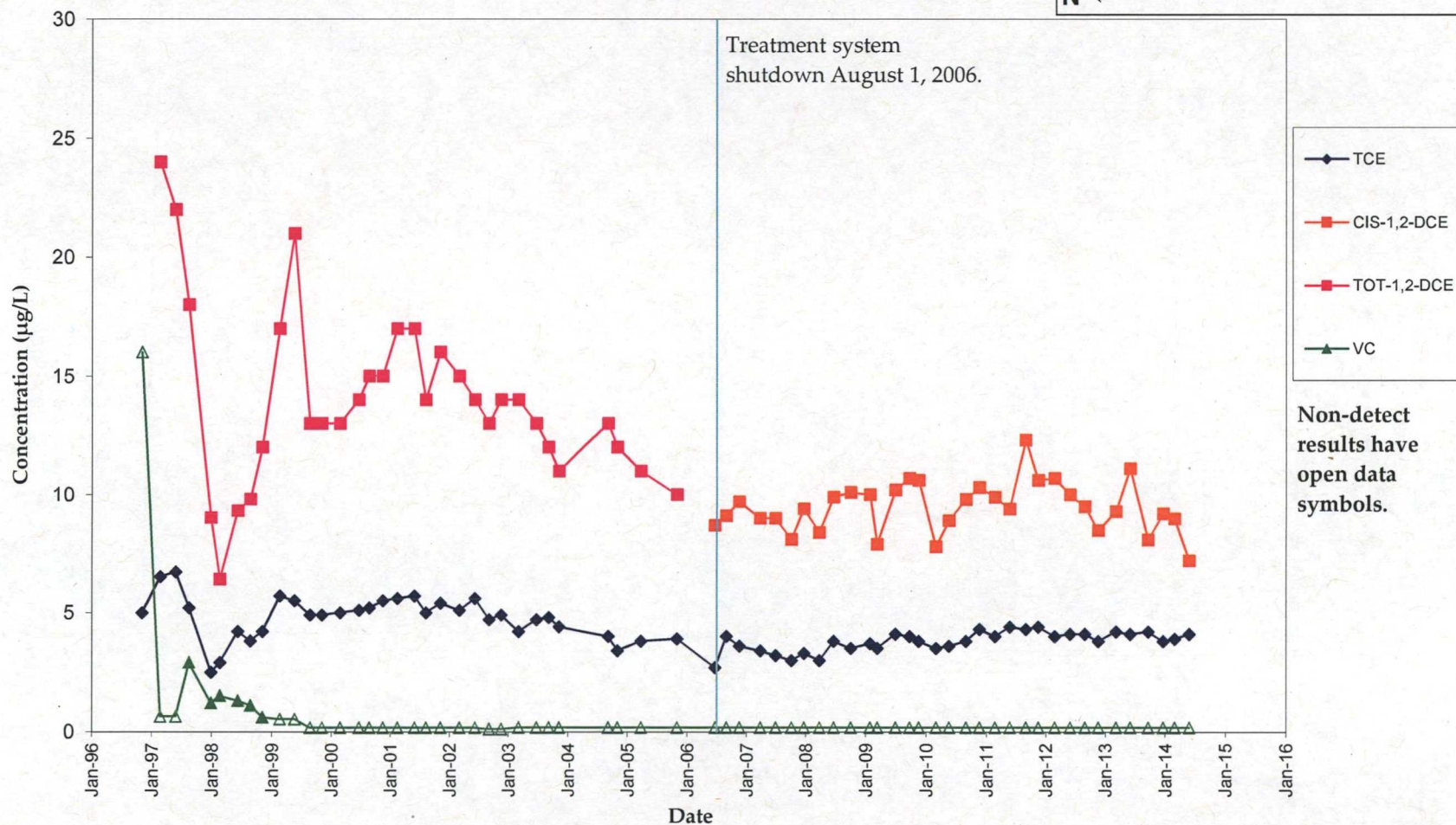
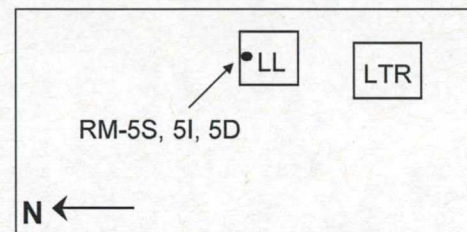


RM-004S
VOC Concentration Trends
Lemberger Landfill

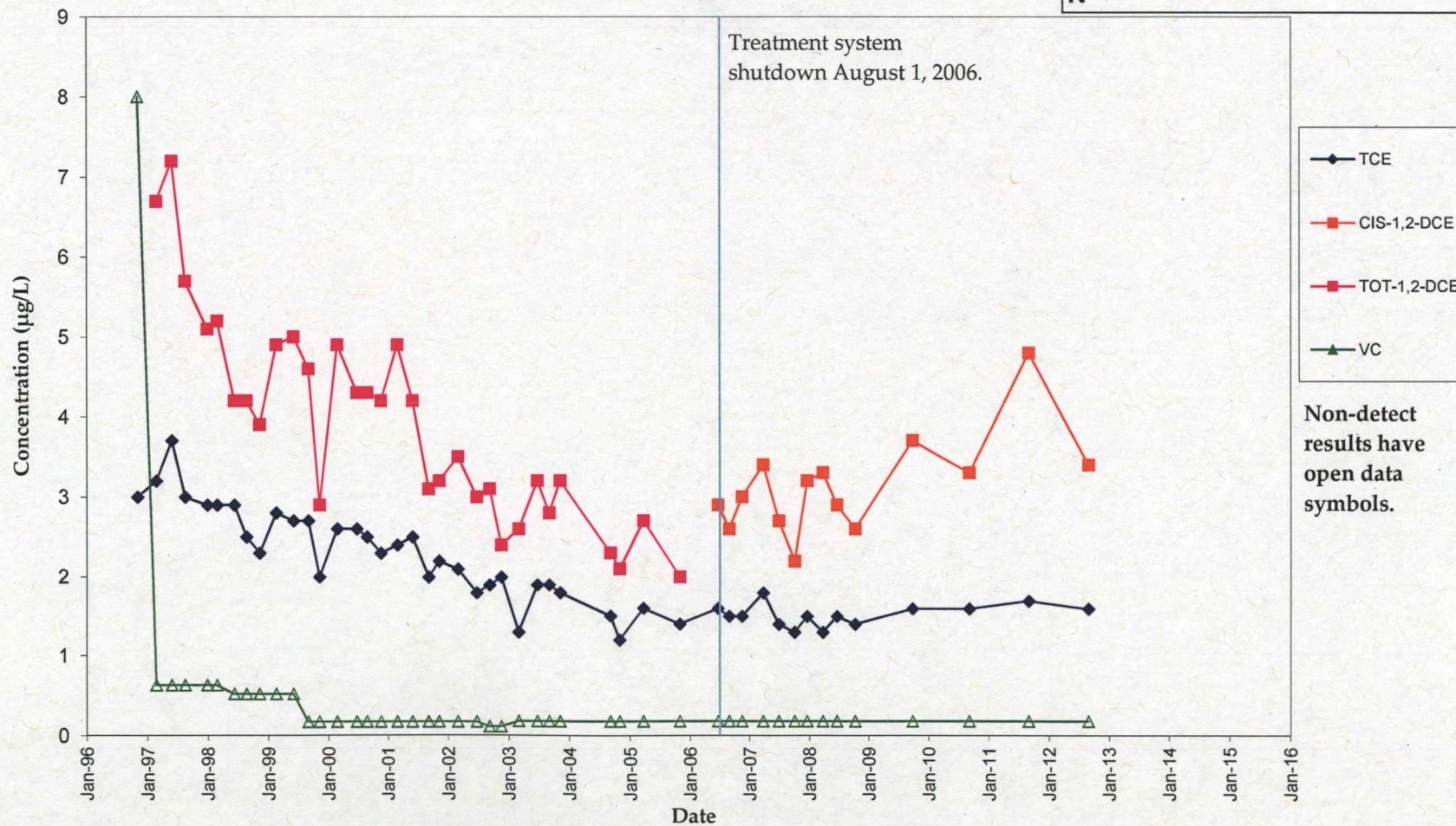
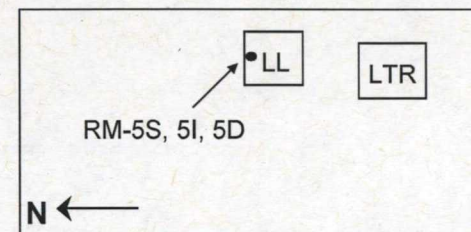
RM-4S, 4D[•] LL LTR
N ←



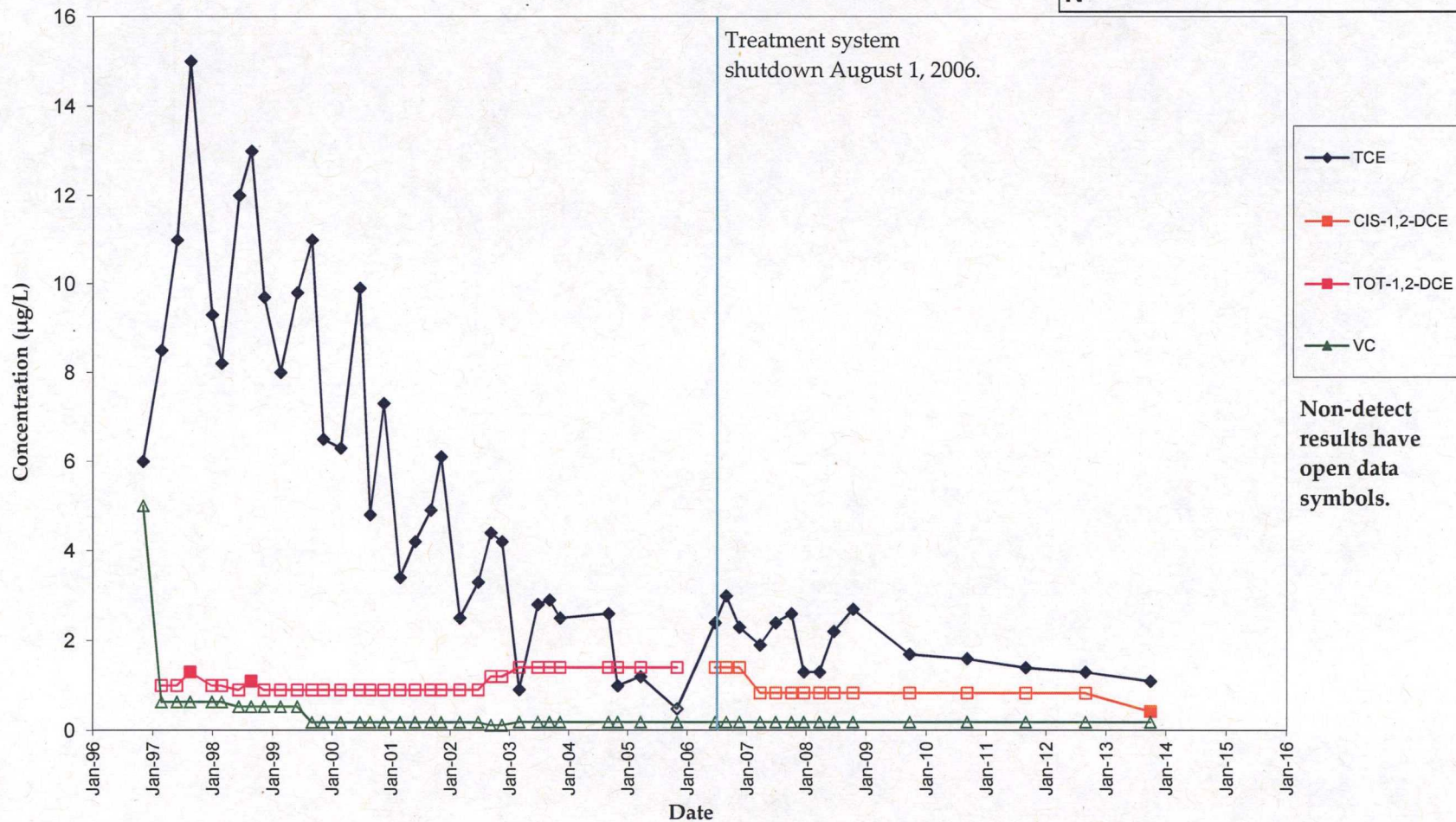
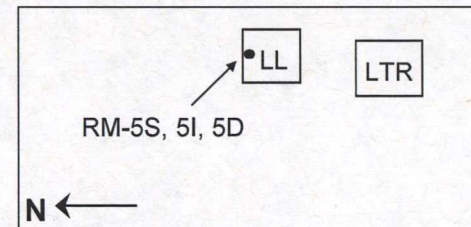
RM-005D VOC Concentration Trends Lemberger Landfill



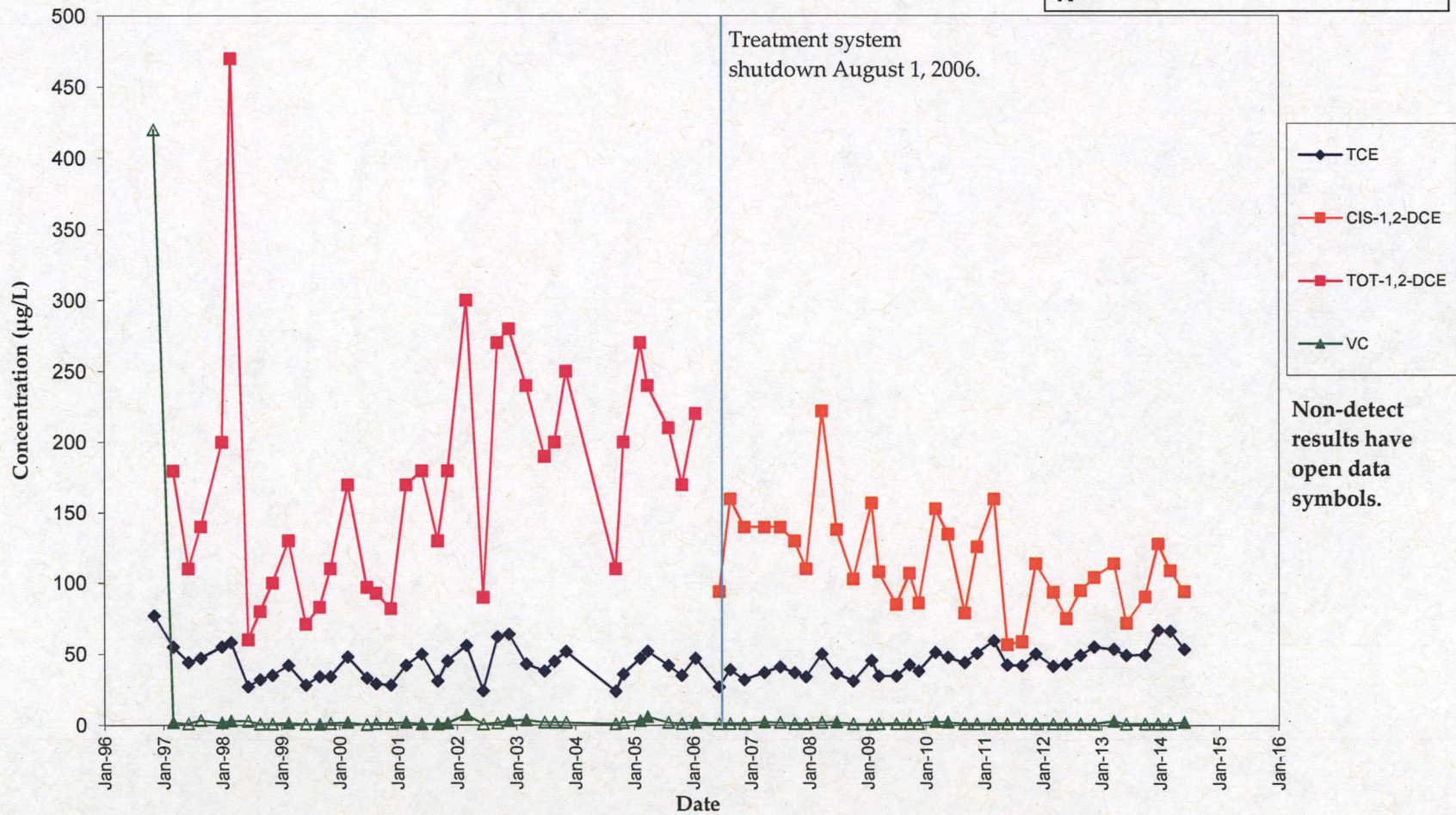
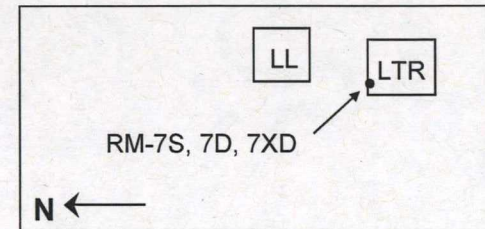
RM-005I
VOC Concentration Trends
Lemberger Landfill



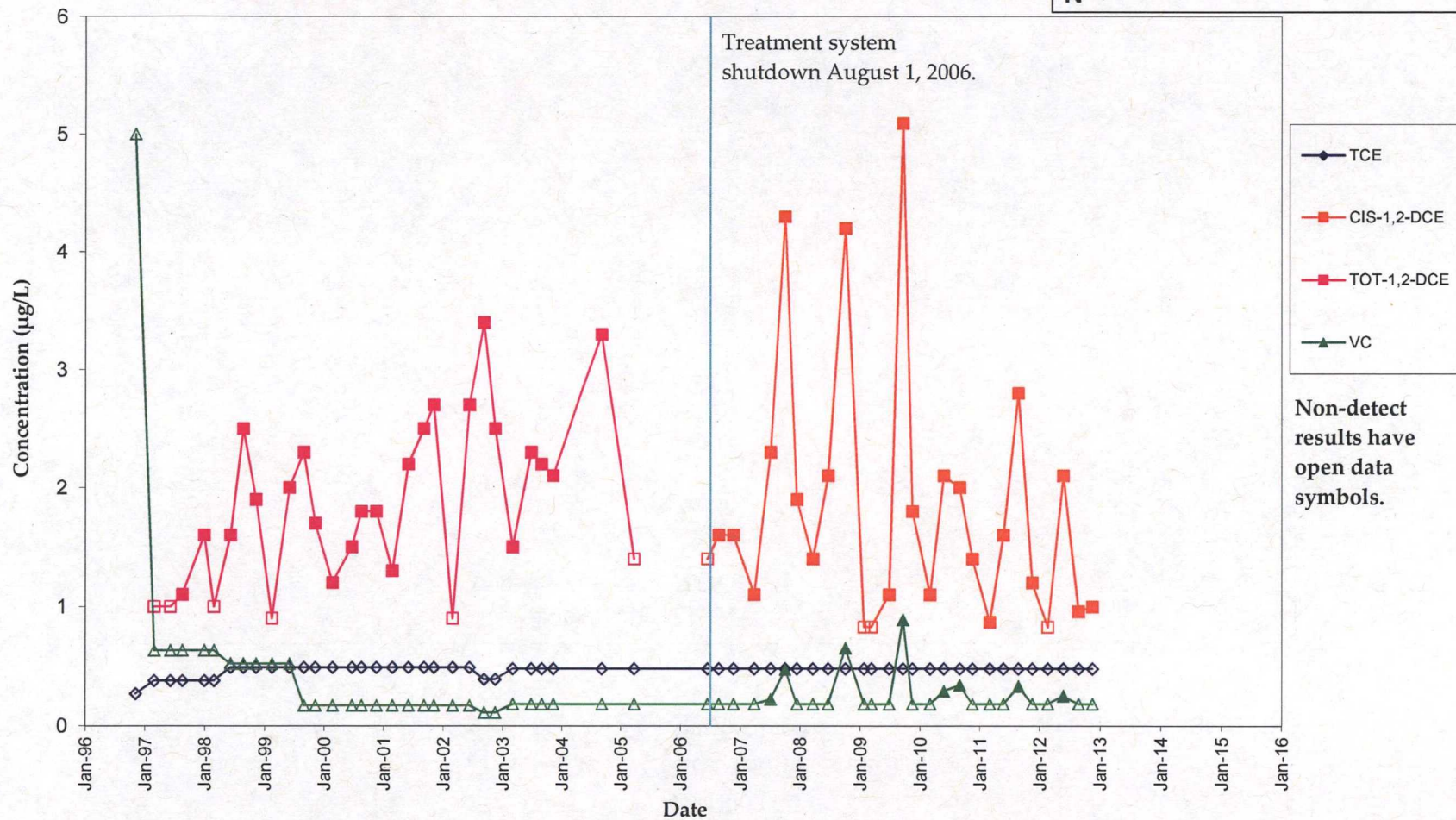
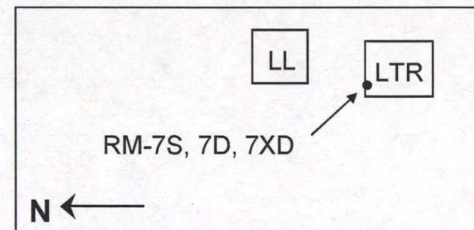
RM-005S
VOC Concentration Trends
Lemberger Landfill



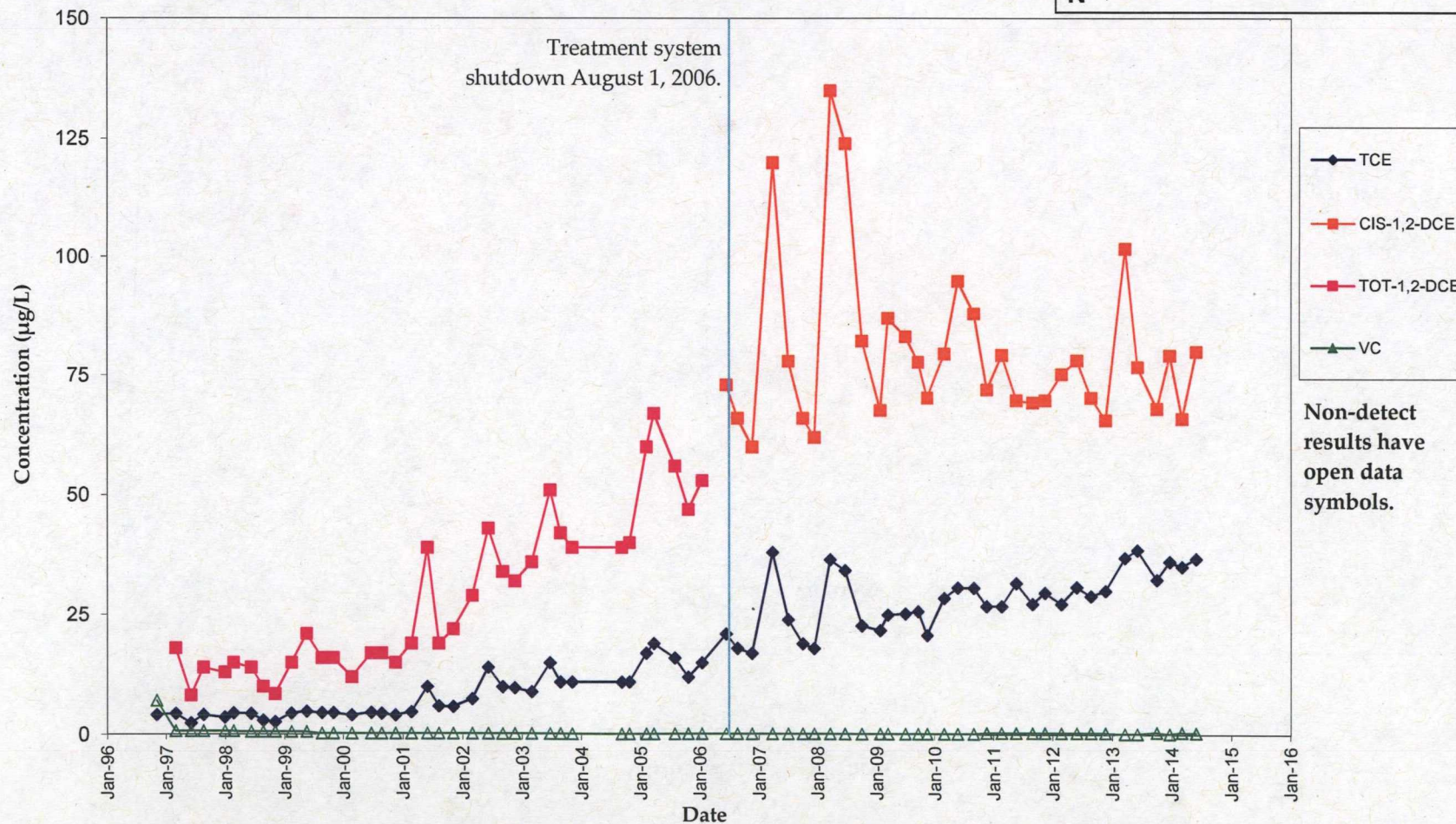
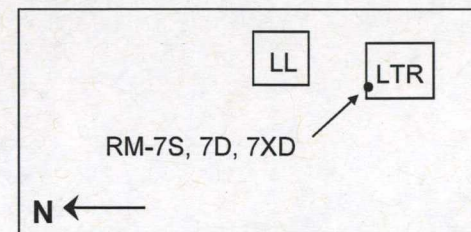
RM-007D
VOC Concentration Trends
Lemberger Landfill



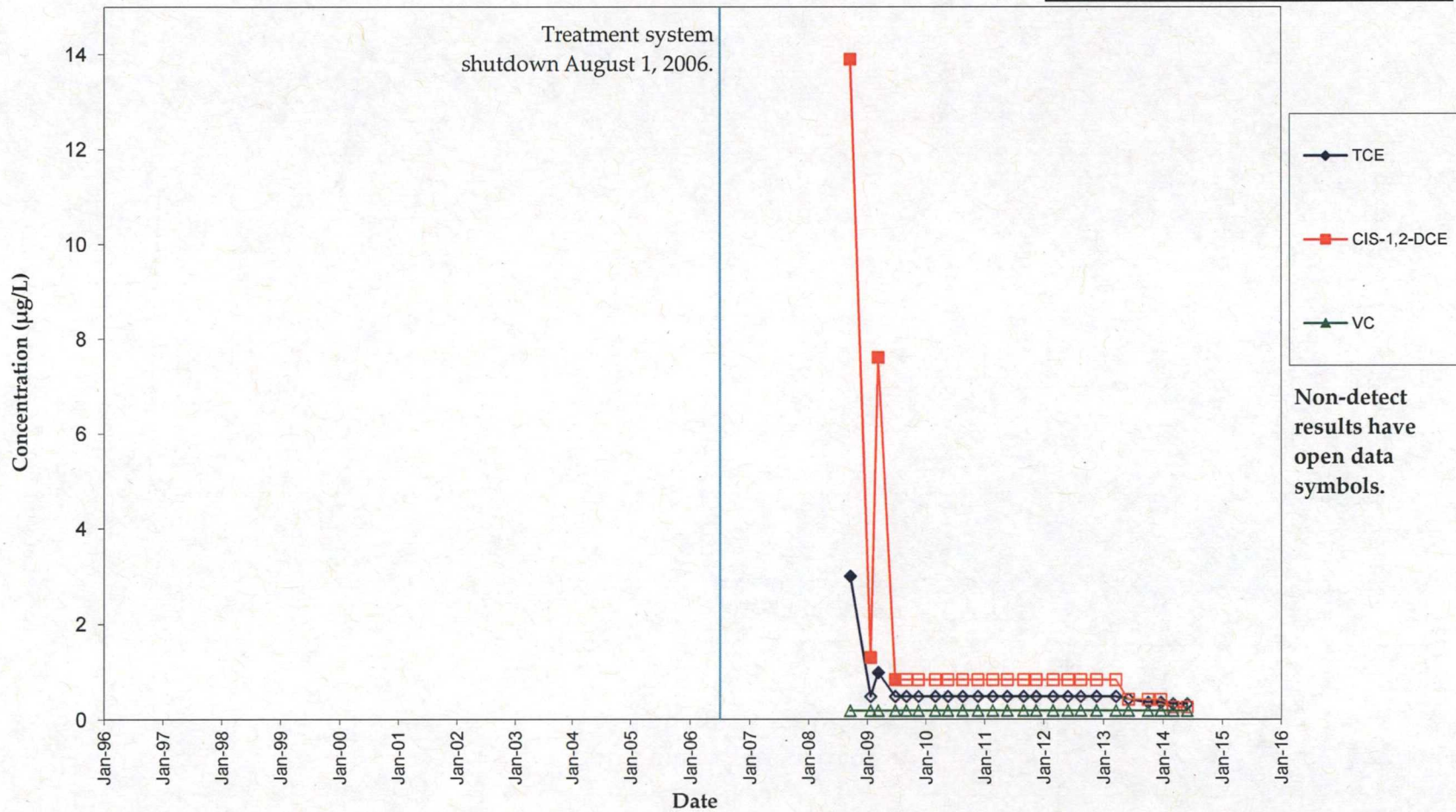
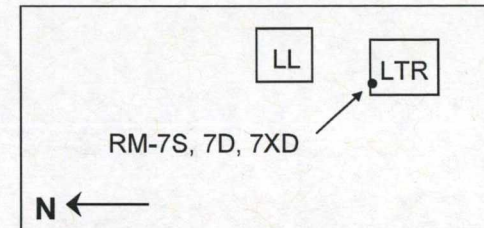
RM-007S
VOC Concentration Trends
Lemberger Landfill



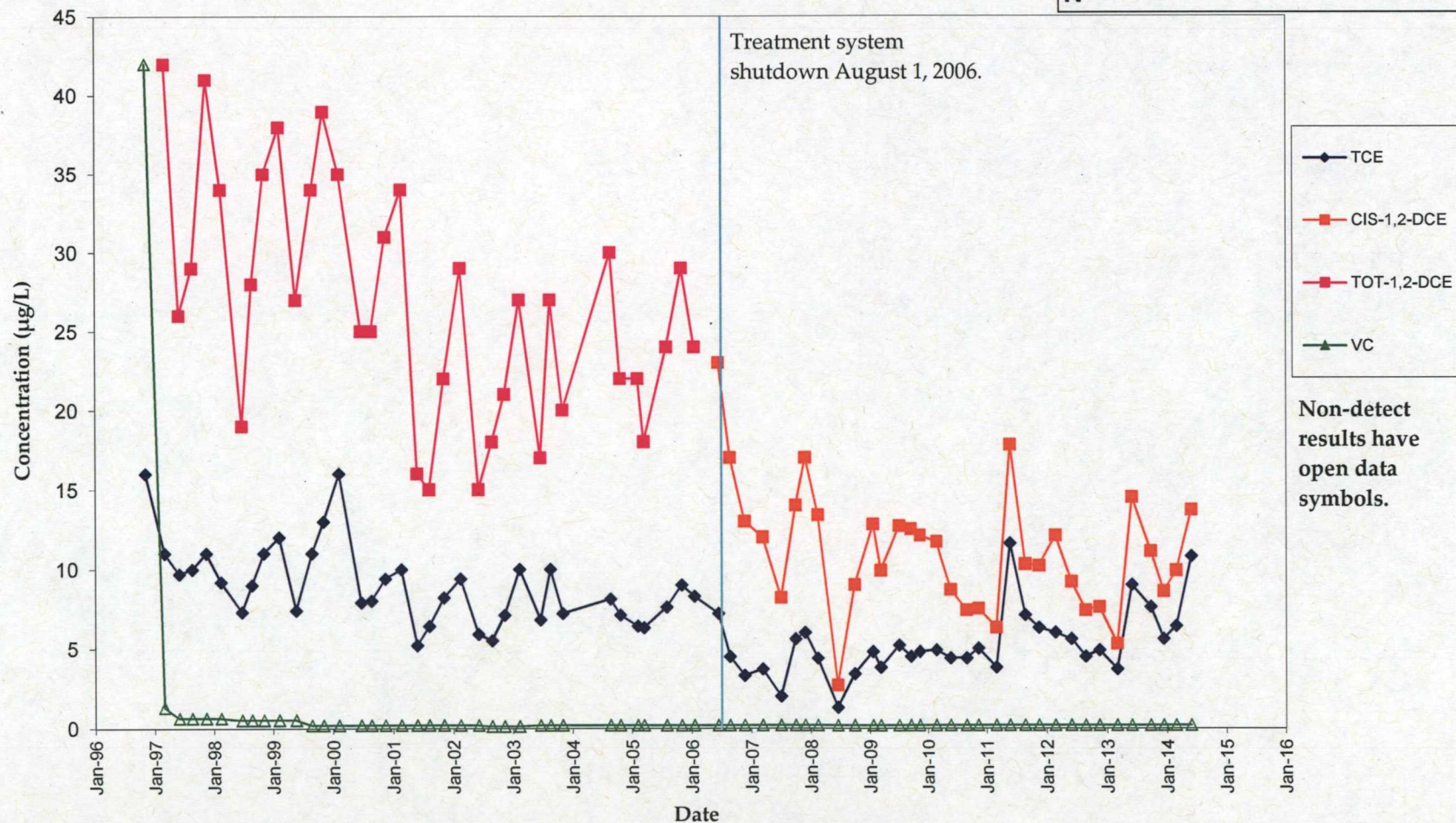
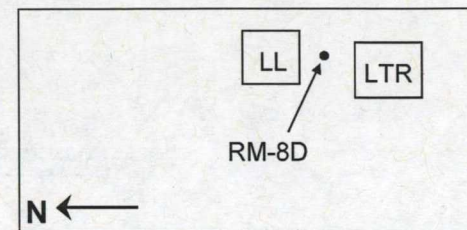
RM-007XD
VOC Concentration Trends
Lemberger Landfill



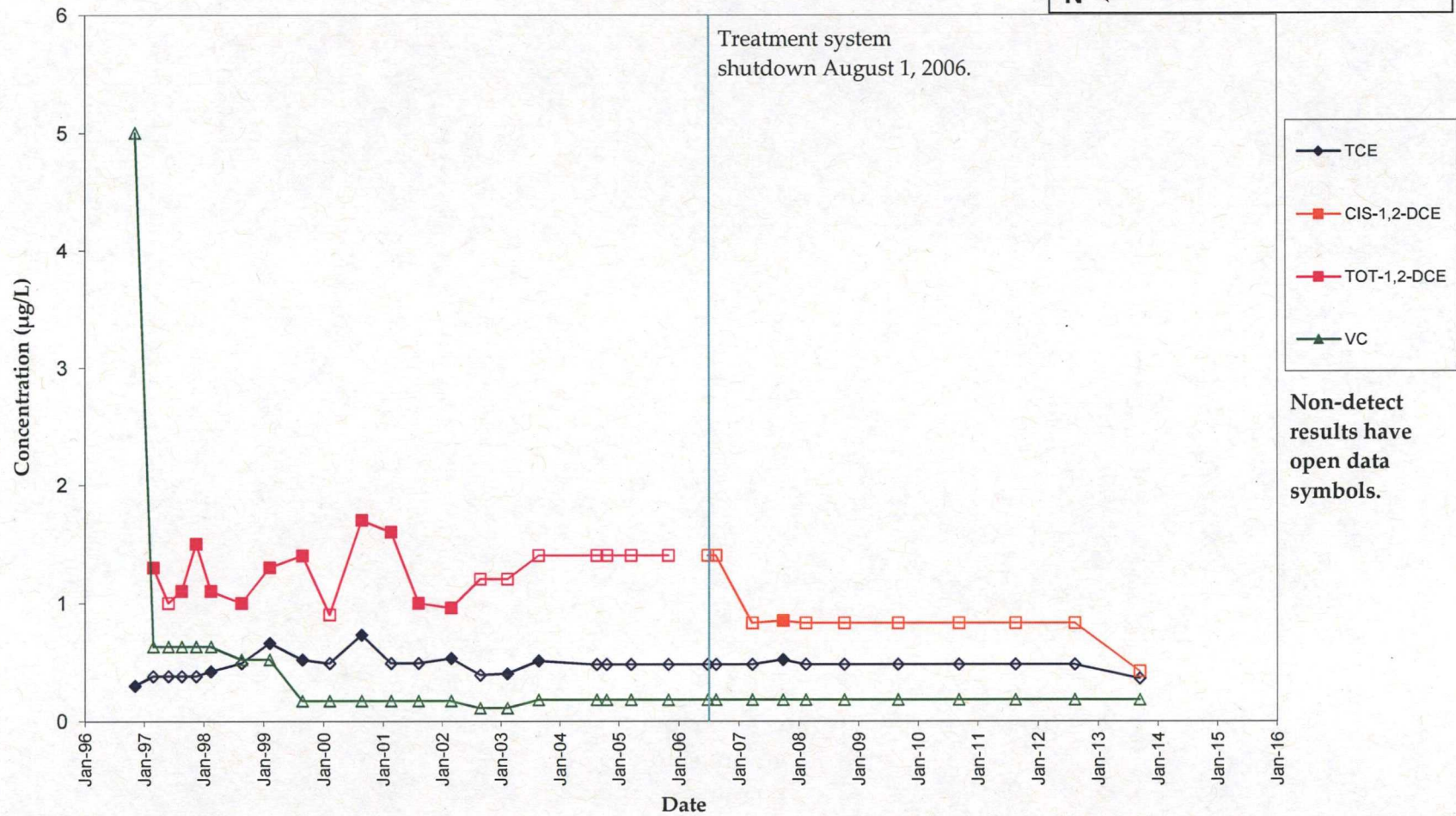
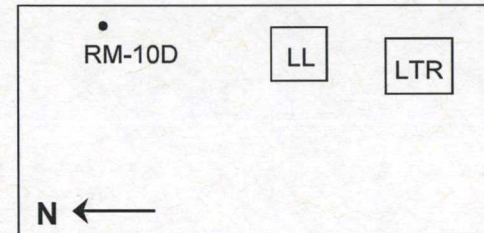
RM-007XXD
VOC Concentration Trends
Lemberger Landfill



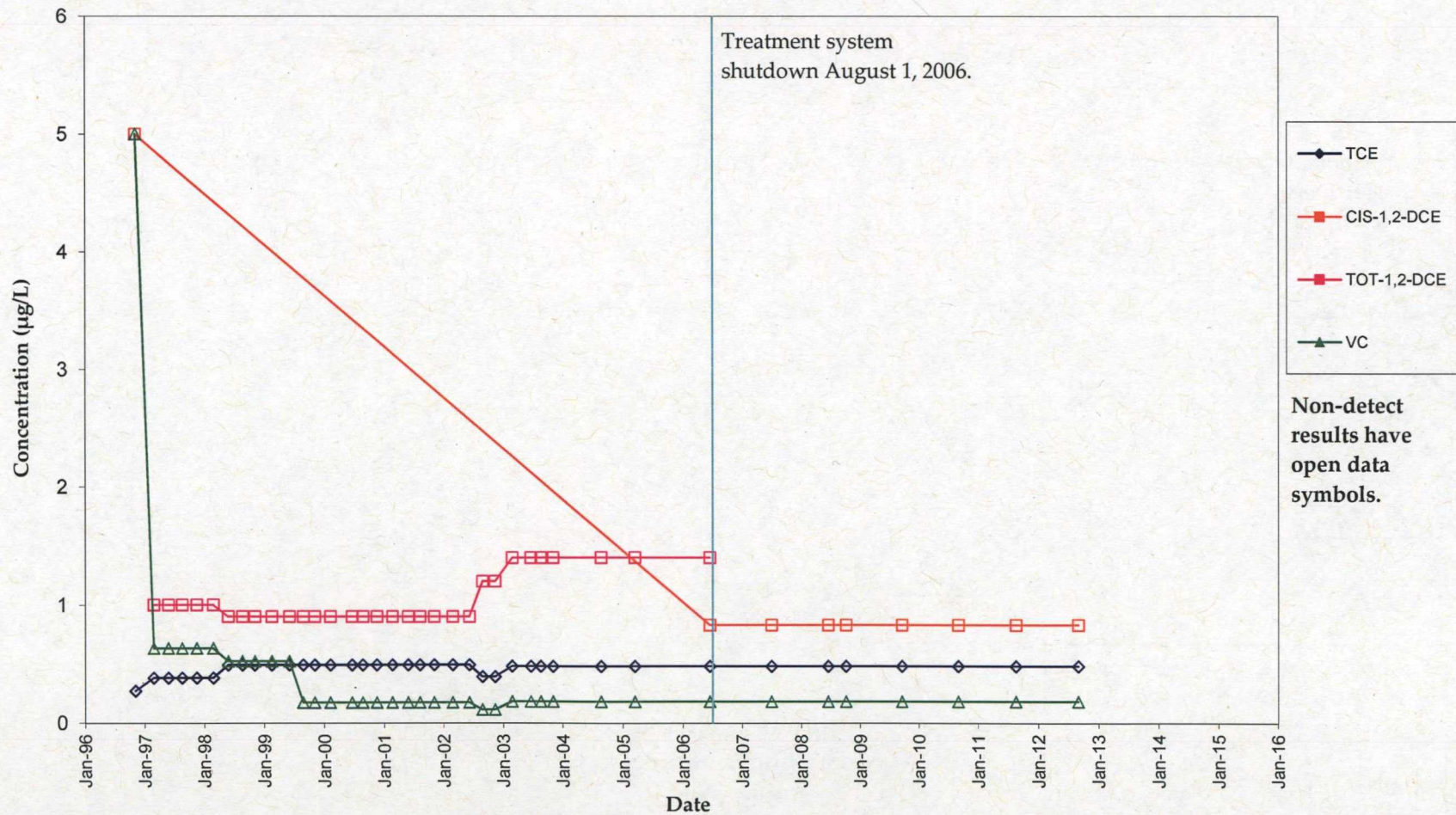
RM-008D
VOC Concentration Trends
Lemberger Landfill



RM-010D
VOC Concentration Trends
Lemberger Landfill



RM-011D
VOC Concentration Trends
Lemberger Landfill



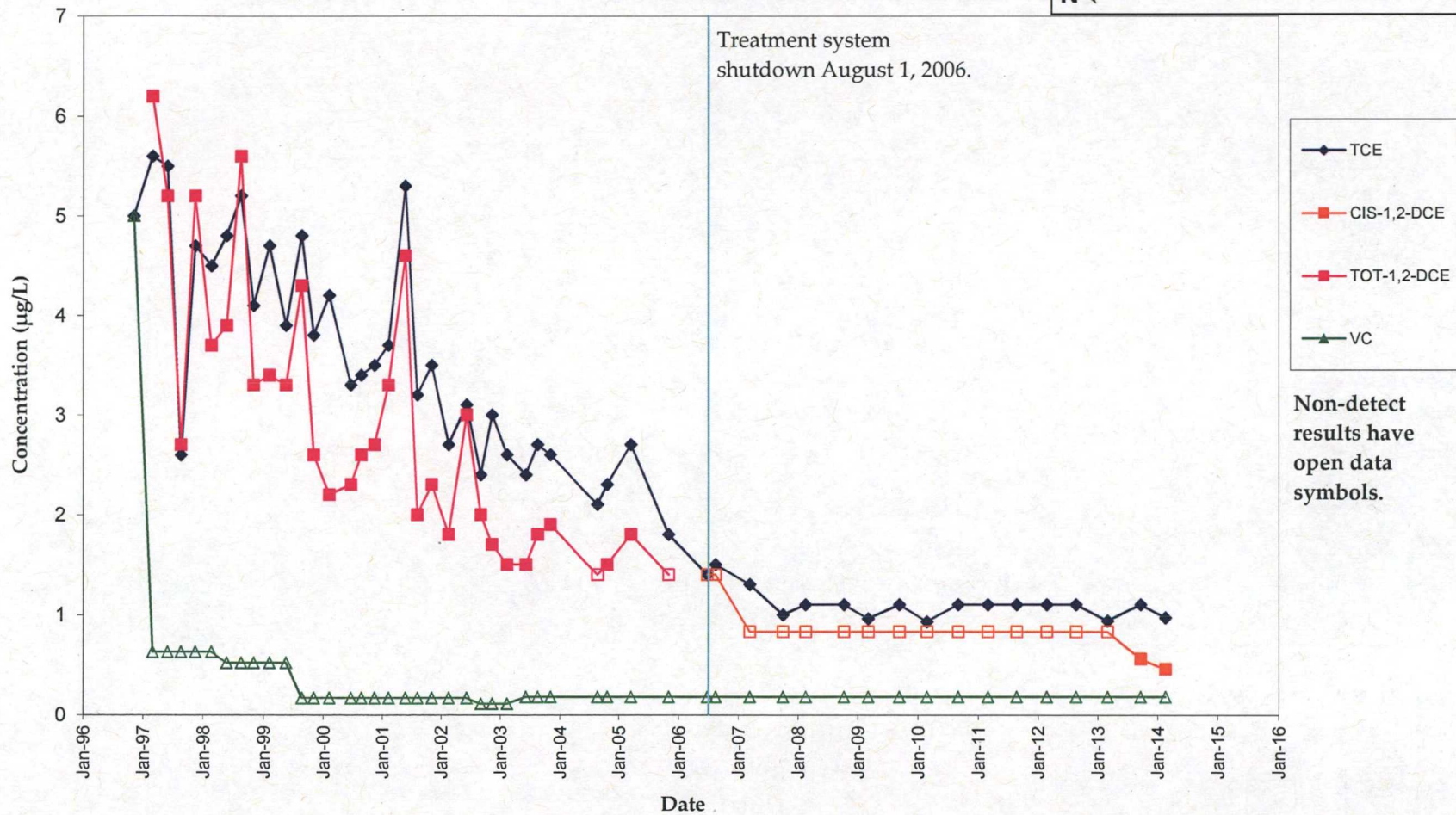
RM-101D VOC Concentration Trends Lemberger Landfill

LL

LTR

RM-101I, 101D •

N ←



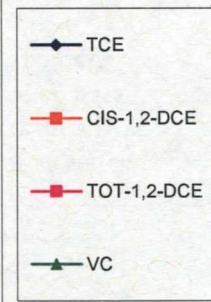
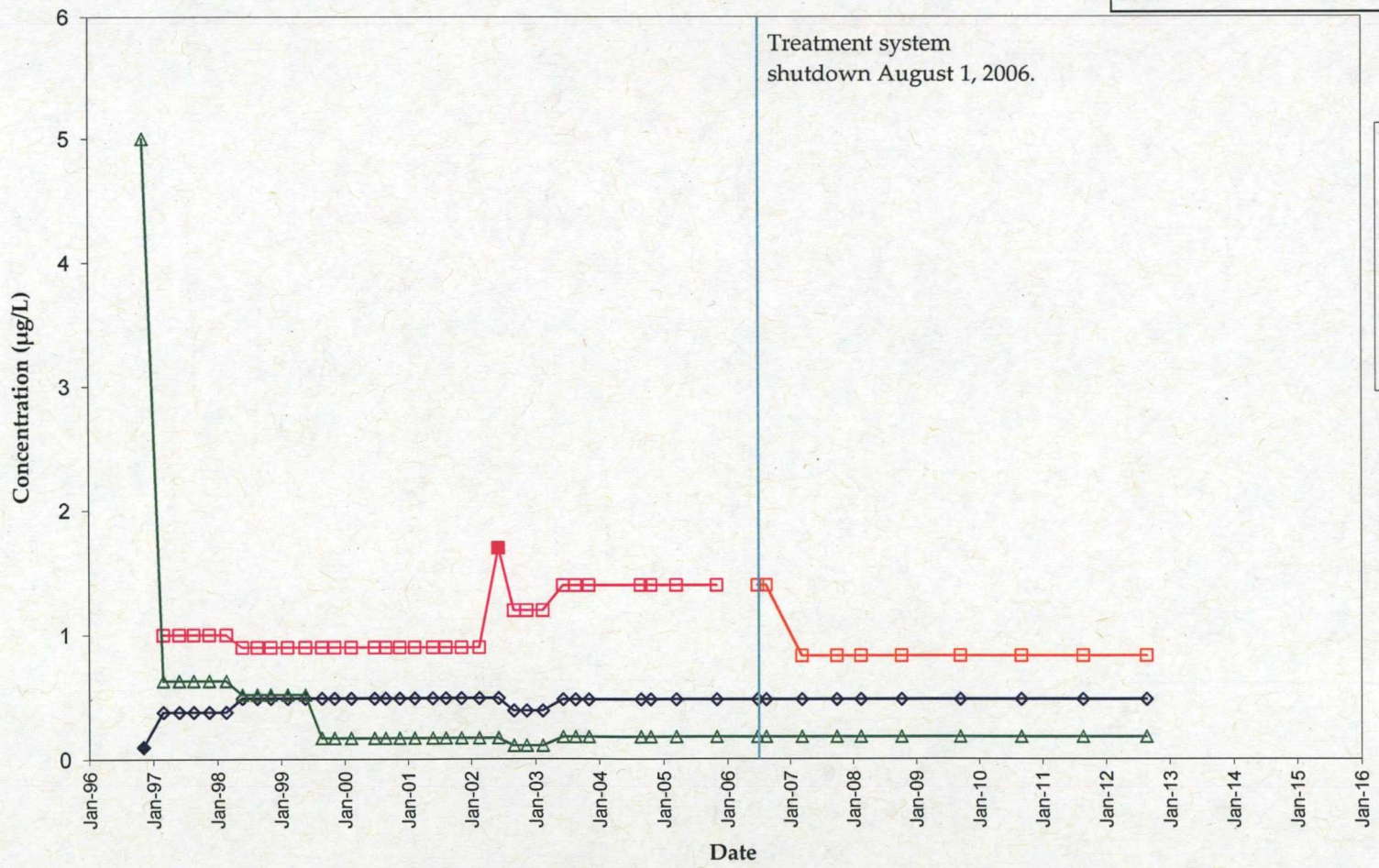
RM-101I VOC Concentration Trends Lemberger Landfill

LL

LTR

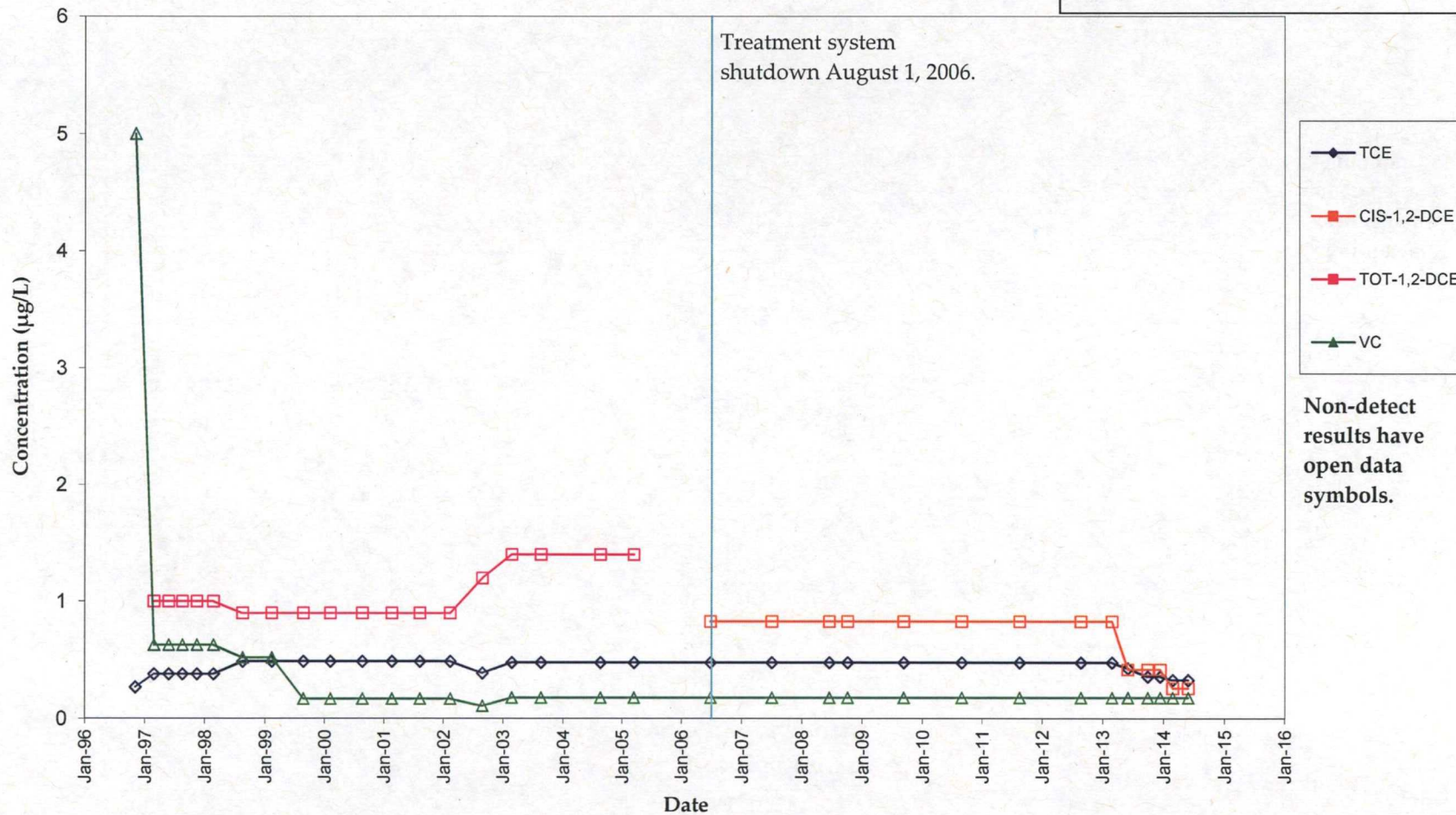
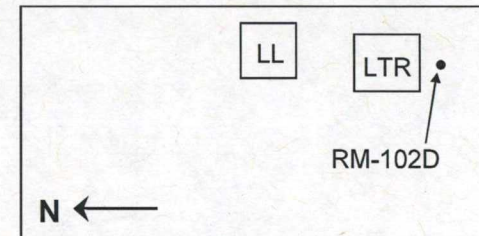
RM-101I, 101D •

N ←

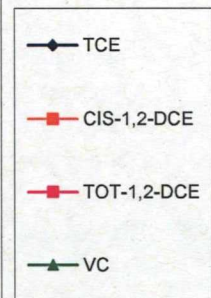
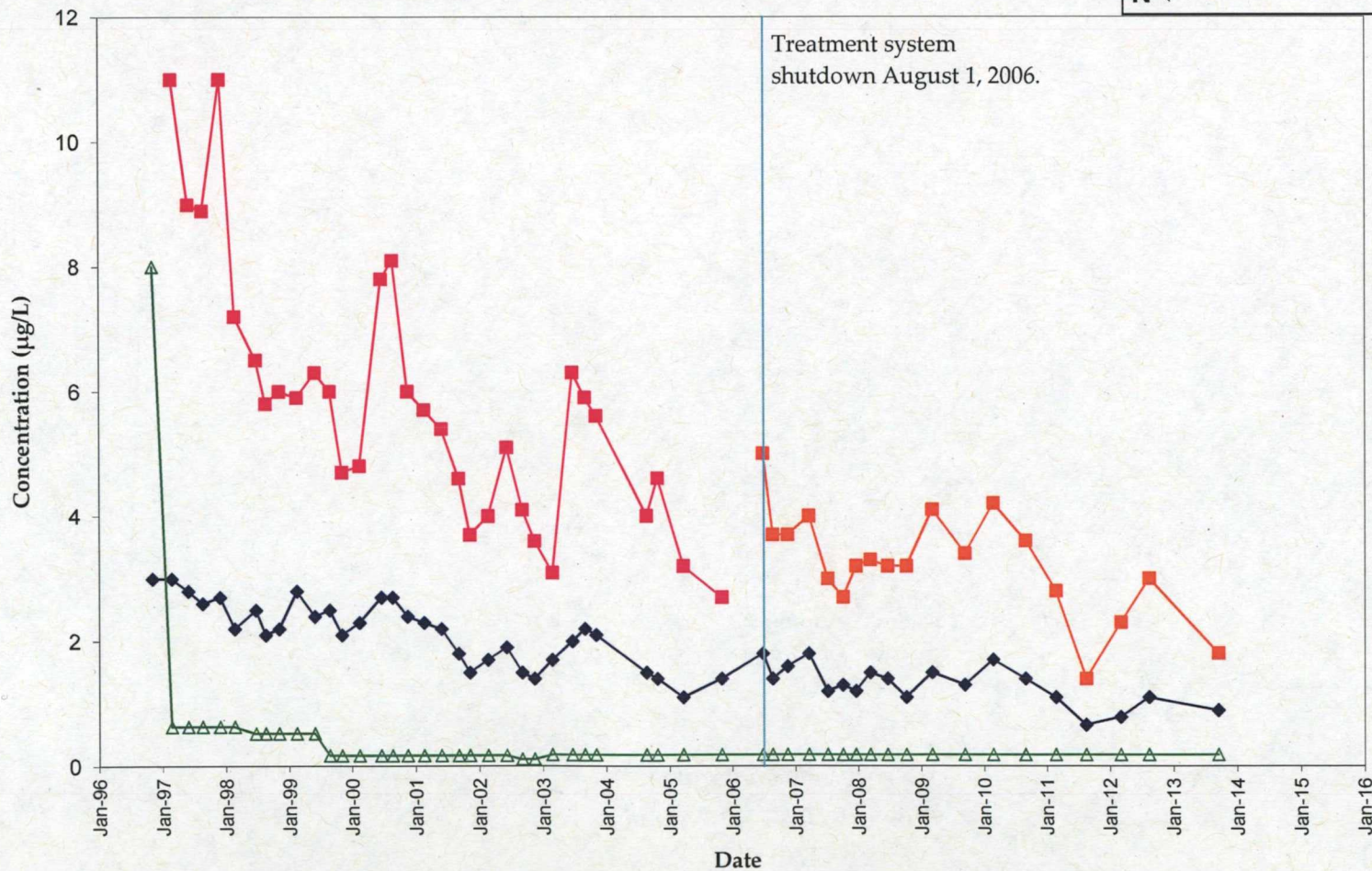
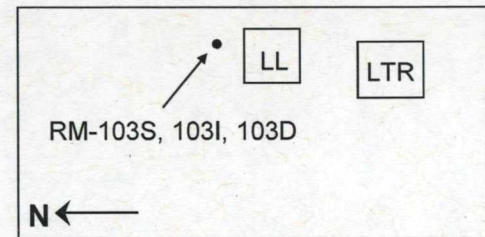


Non-detect results have open data symbols.

RM-102D VOC Concentration Trends Lemberger Landfill

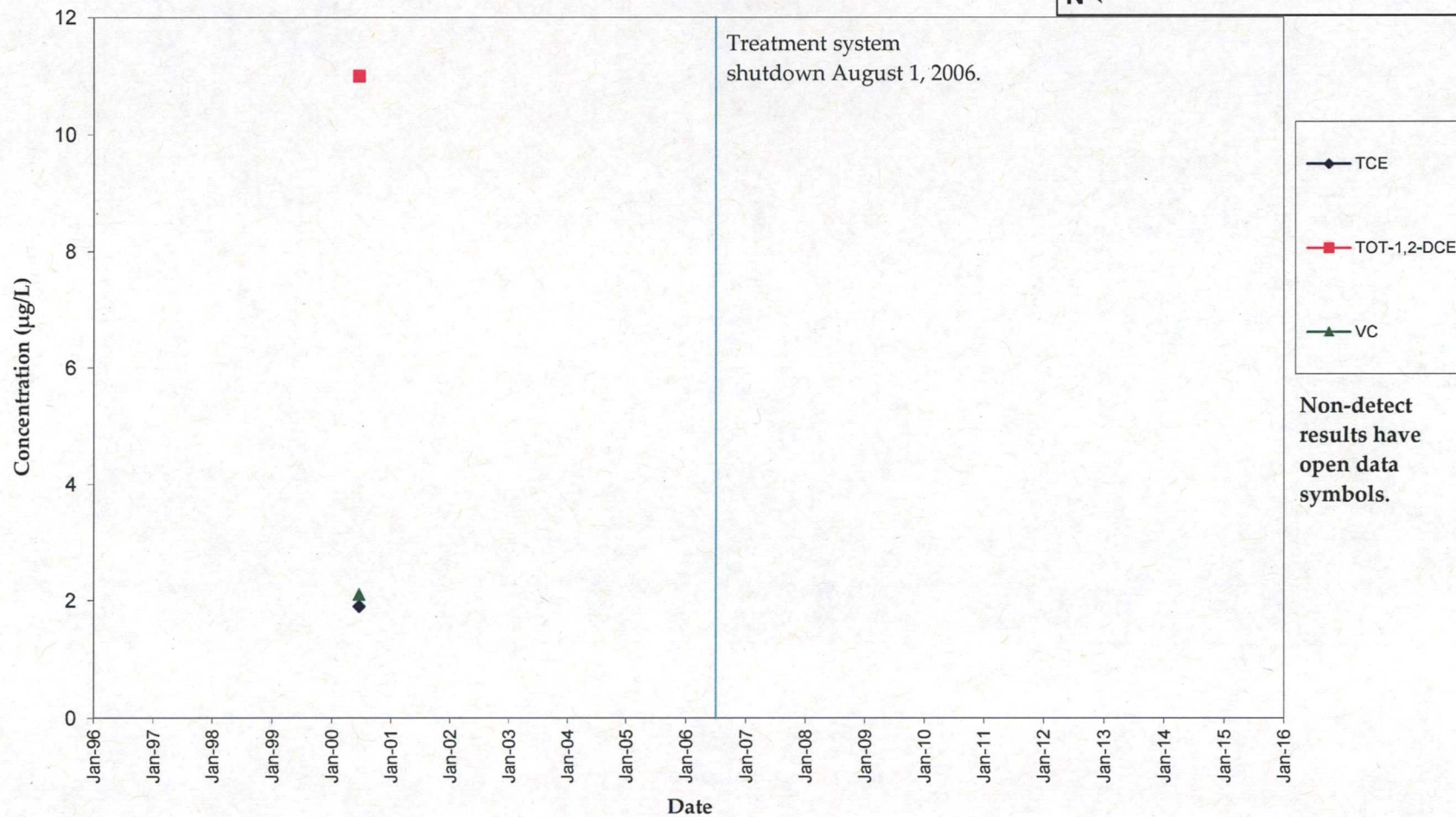
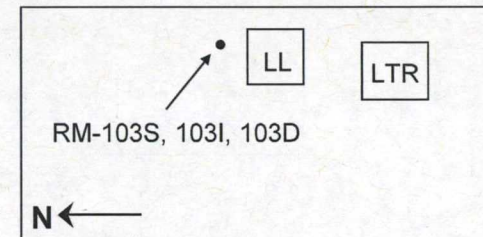


RM-103D VOC Concentration Trends Lemberger Landfill

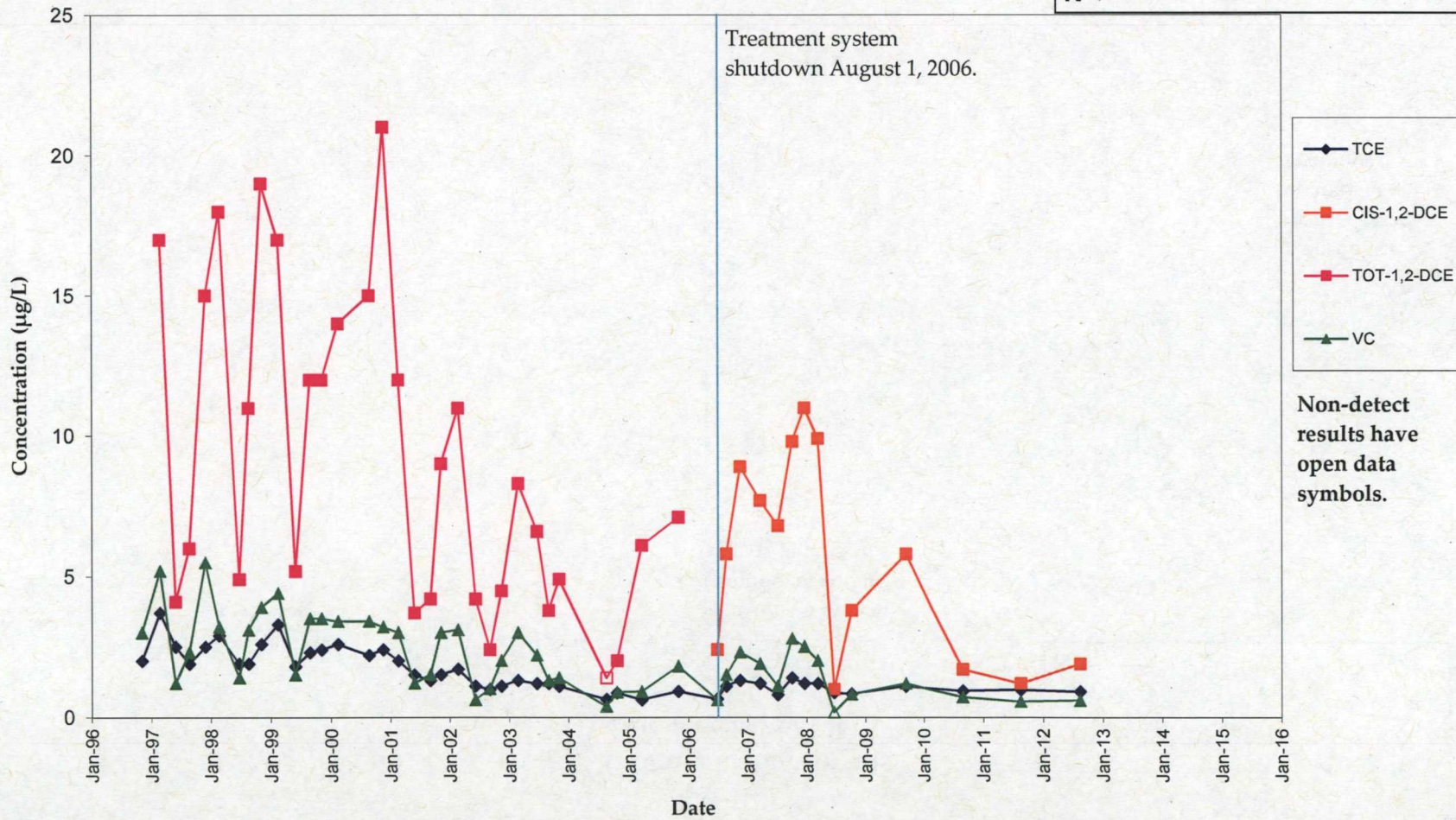
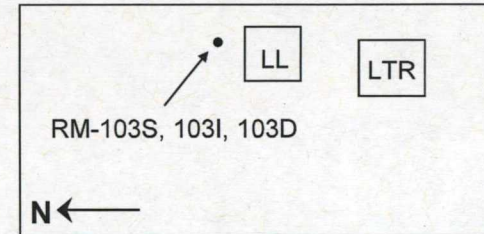


Non-detect
results have
open data
symbols.

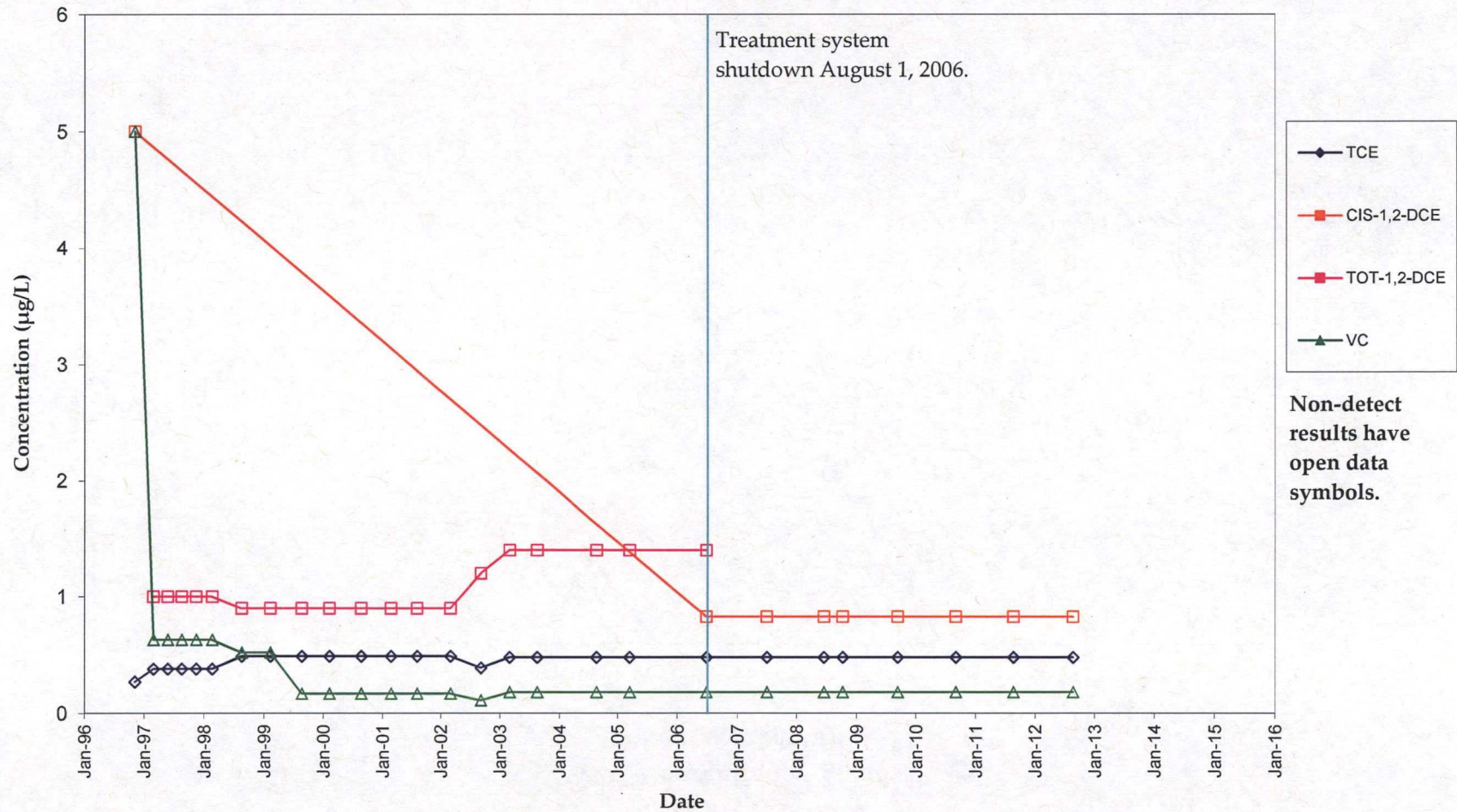
RM-103I
VOC Concentration Trends
Lemberger Landfill



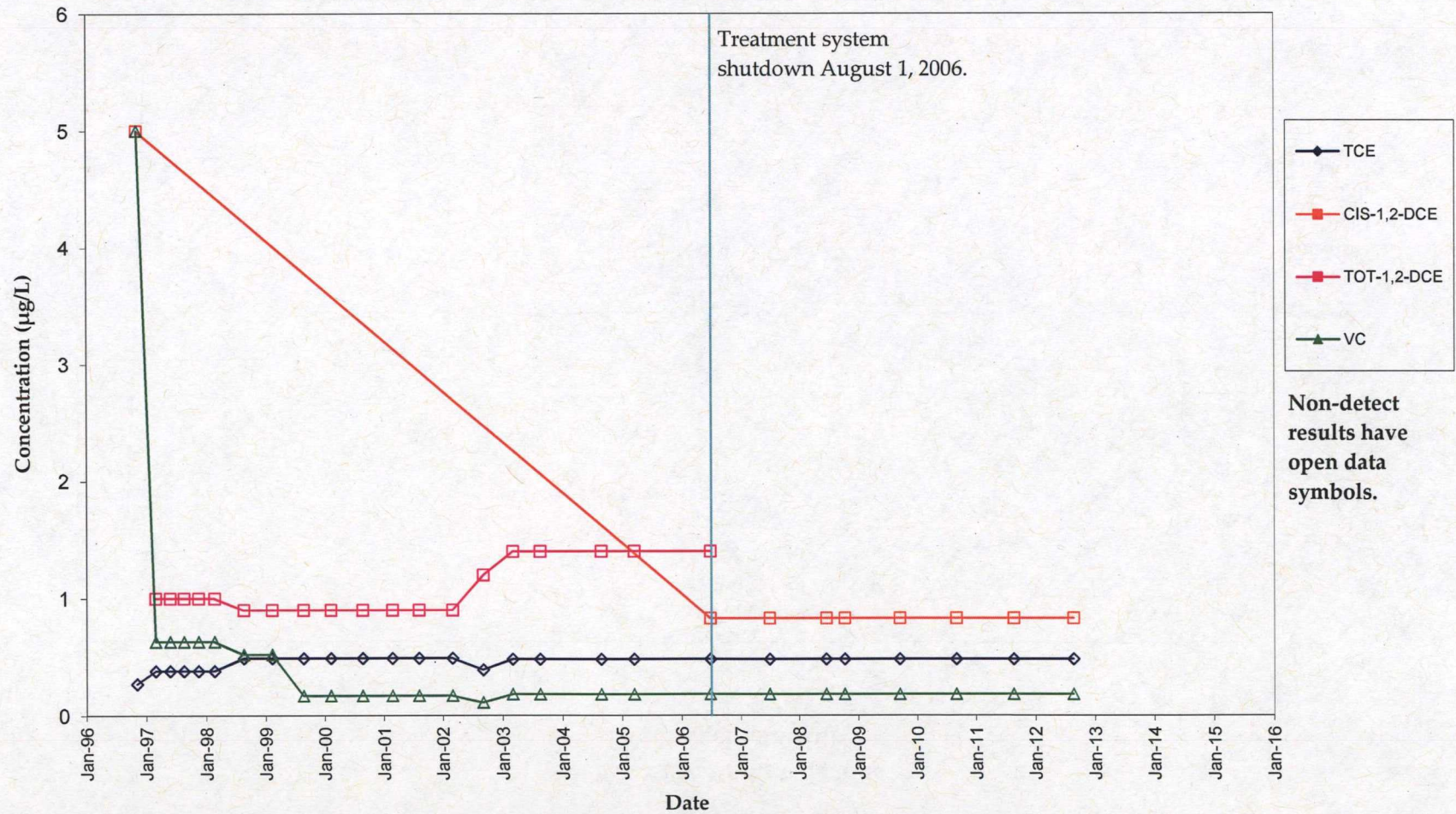
RM-103S VOC Concentration Trends Lemberger Landfill



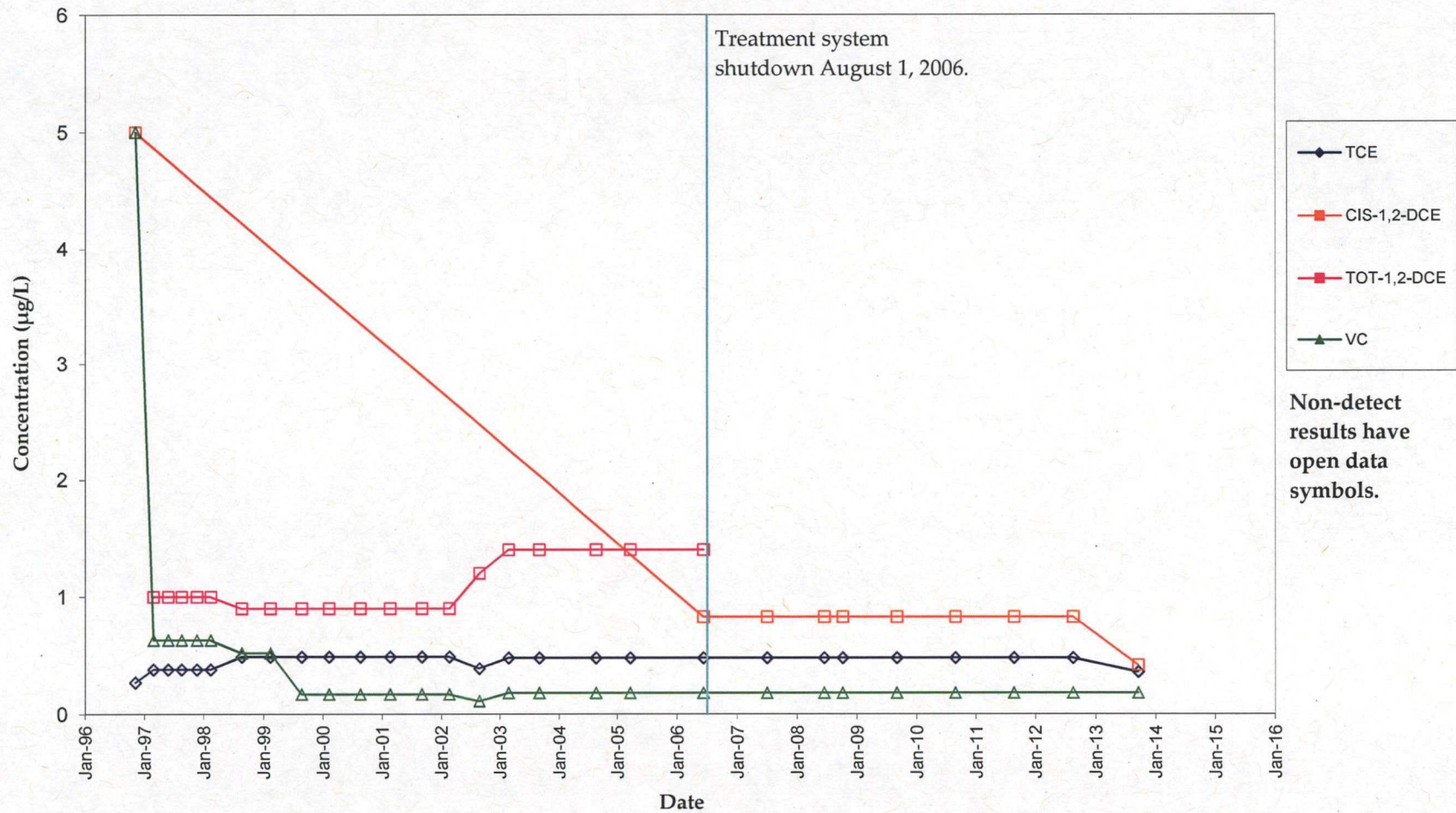
RM-201D
VOC Concentration Trends
Lemberger Landfill



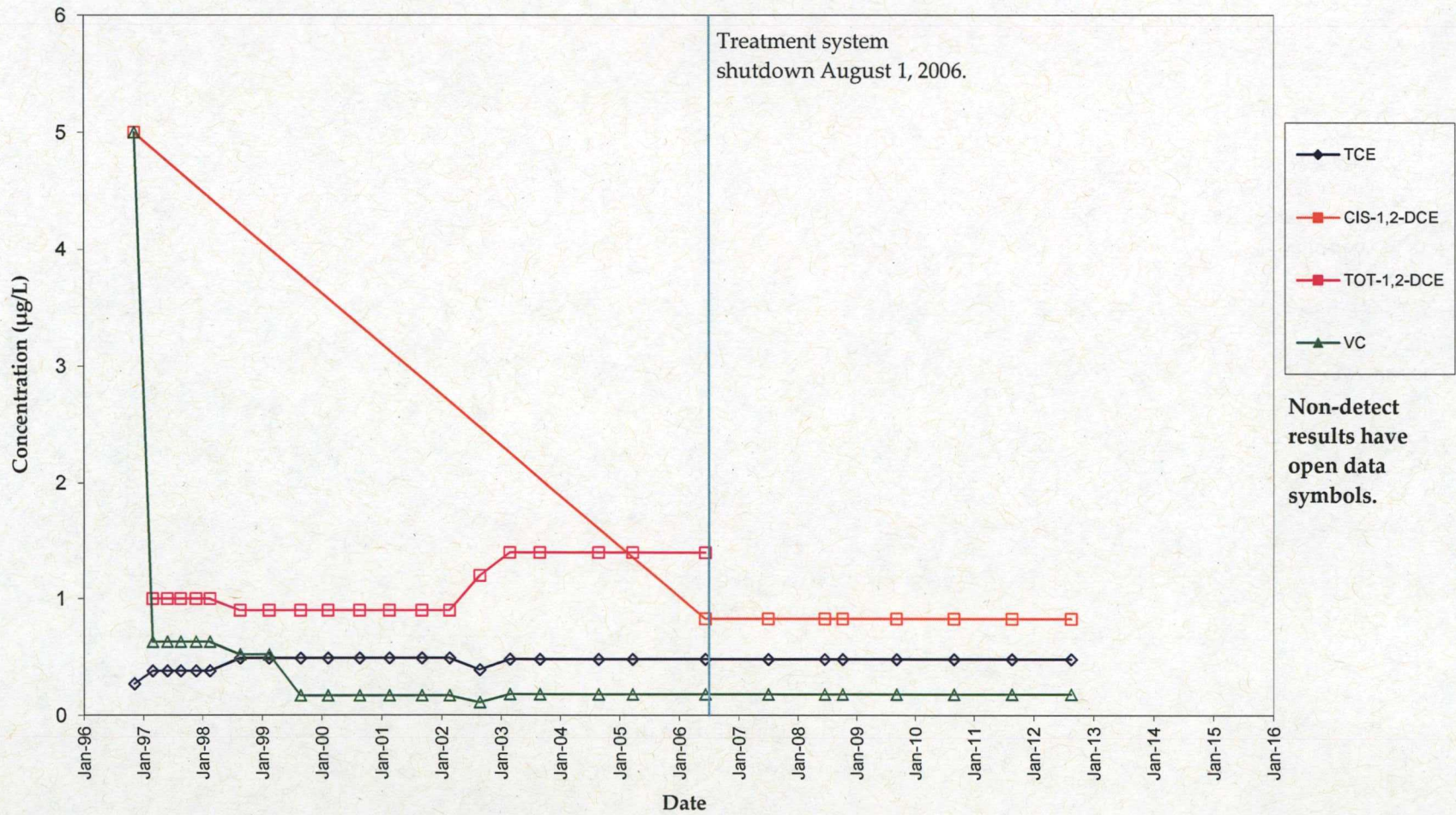
RM-2011
VOC Concentration Trends
Lemberger Landfill



RM-202D
VOC Concentration Trends
Lemberger Landfill



RM-202I
VOC Concentration Trends
Lemberger Landfill

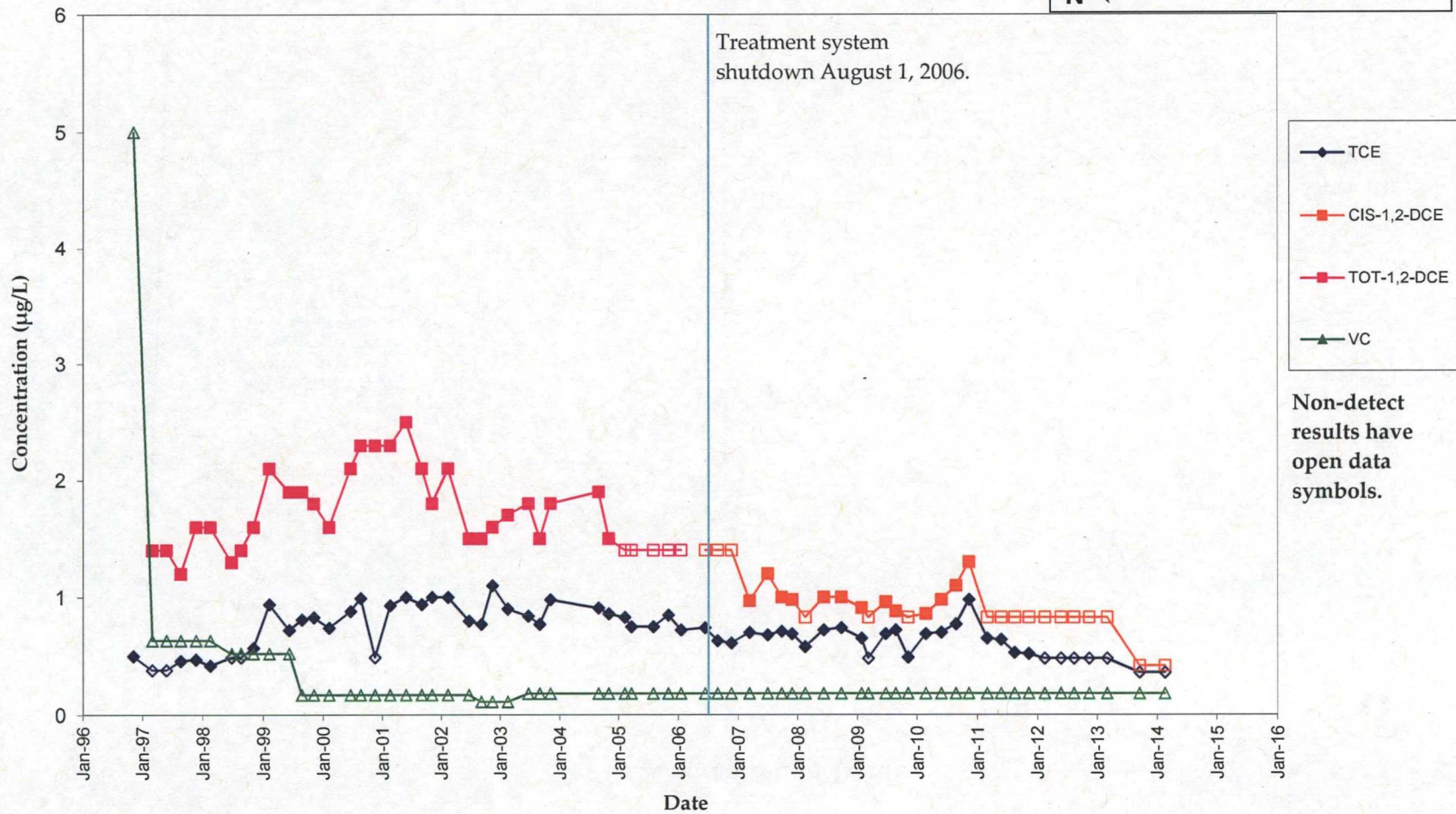


RM-203D
VOC Concentration Trends
Lemberger Landfill

LL LTR

• RM-203I, 203D

N ←

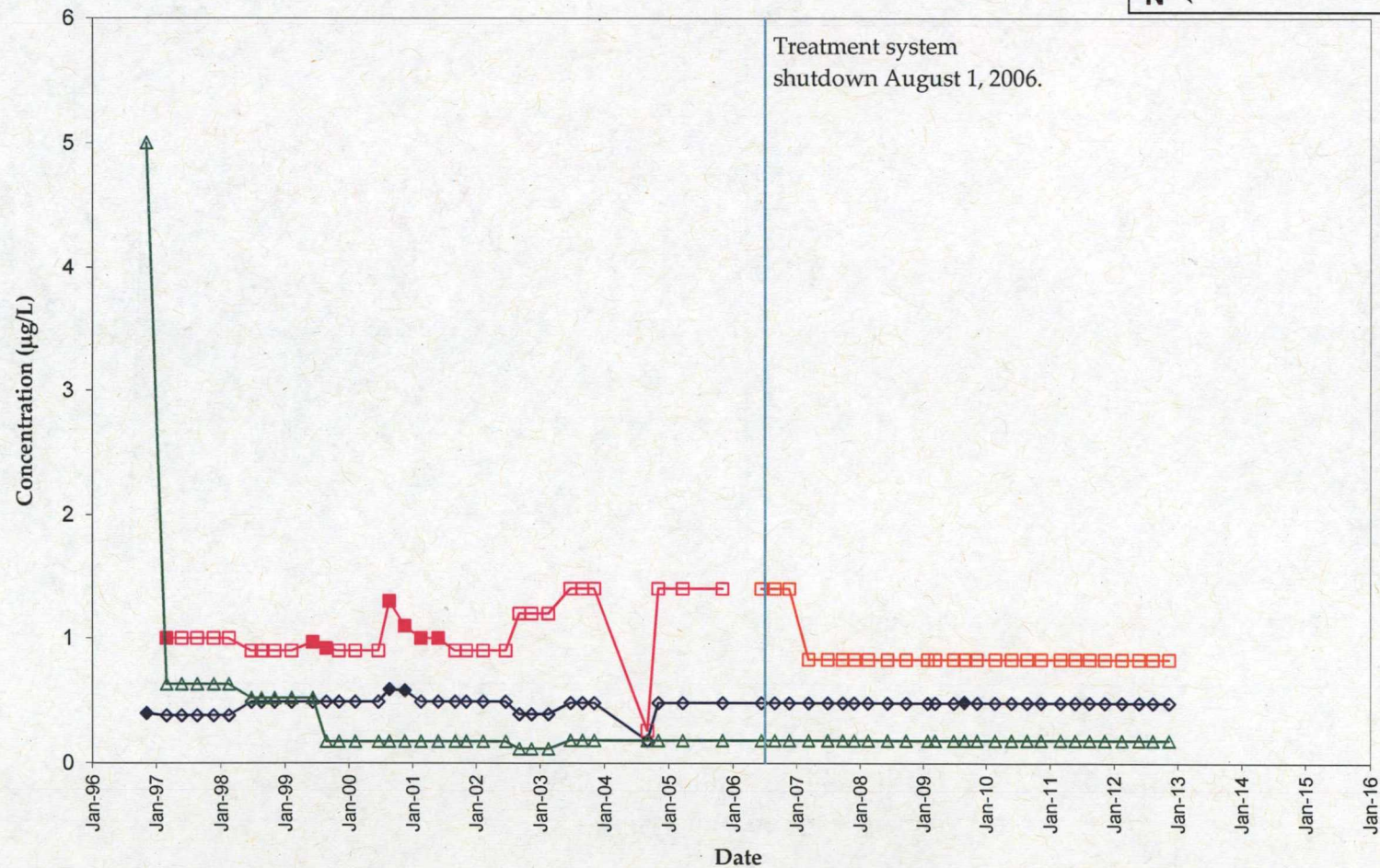


RM-203I
VOC Concentration Trends
Lemberger Landfill

LL LTR

• RM-203I, 203D

N ←



◆ TCE

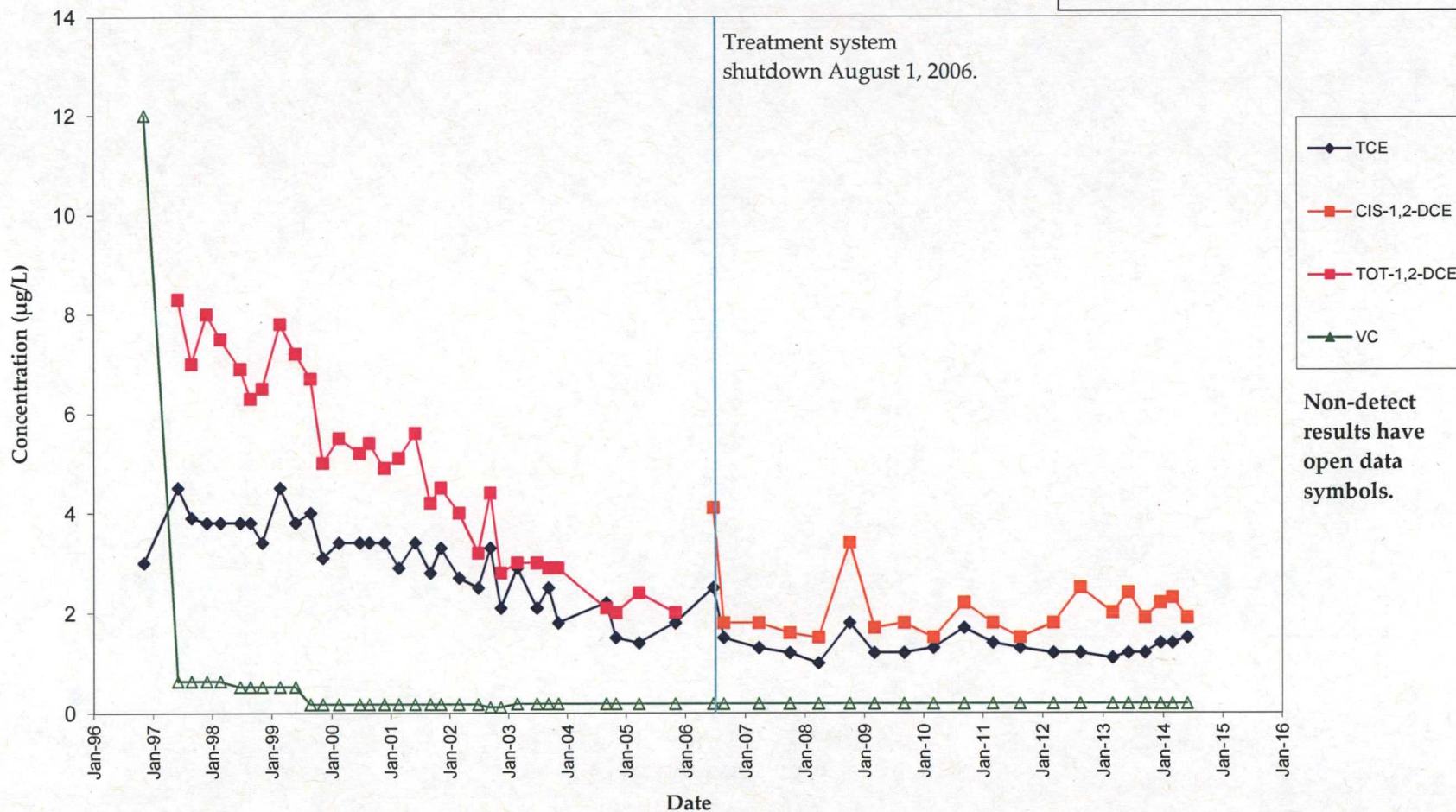
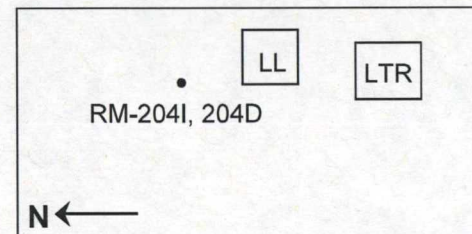
■ CIS-1,2-DCE

■ TOT-1,2-DCE

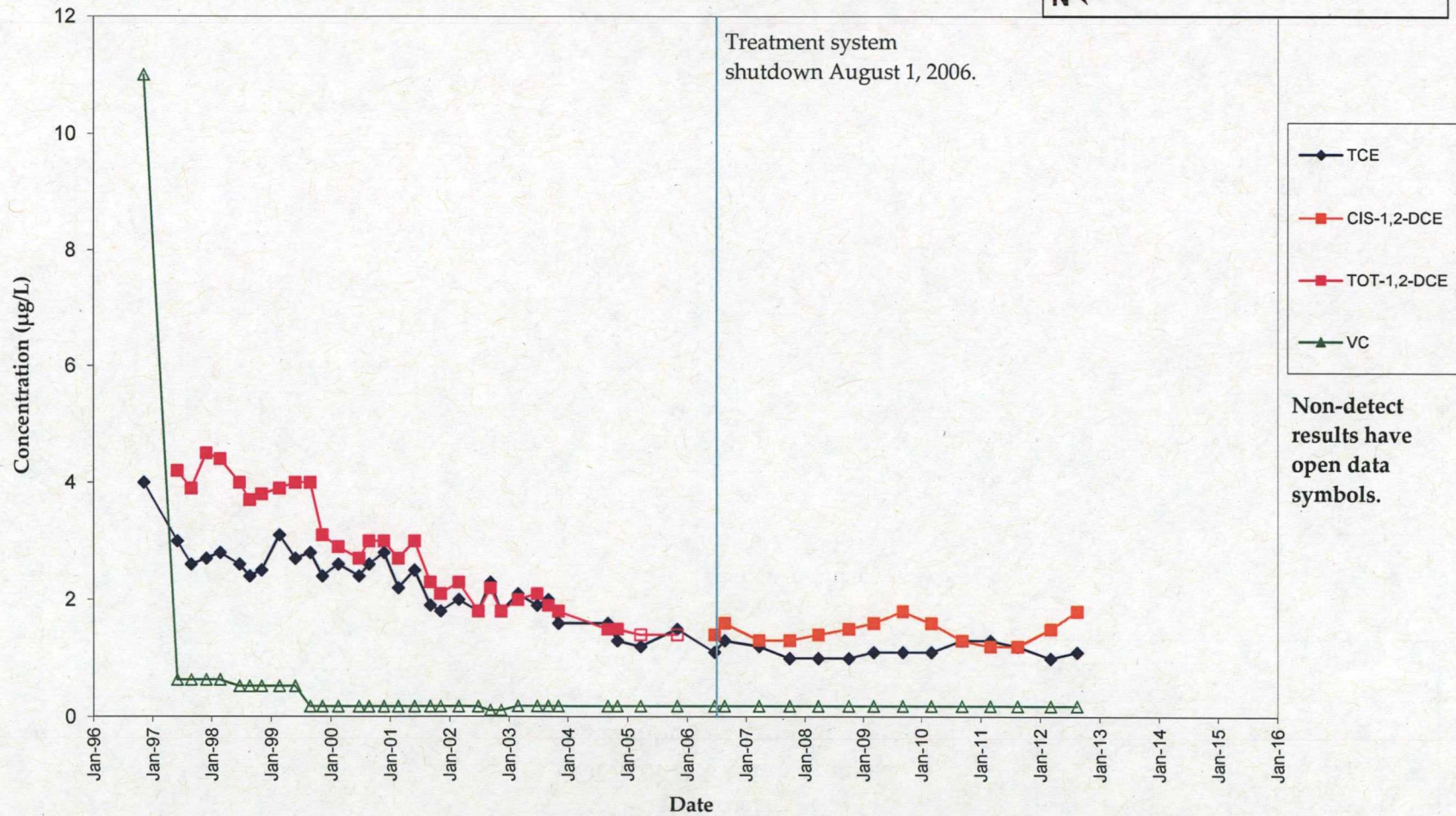
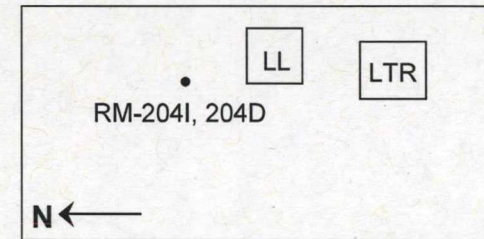
▲ VC

Non-detect
results have
open data
symbols.

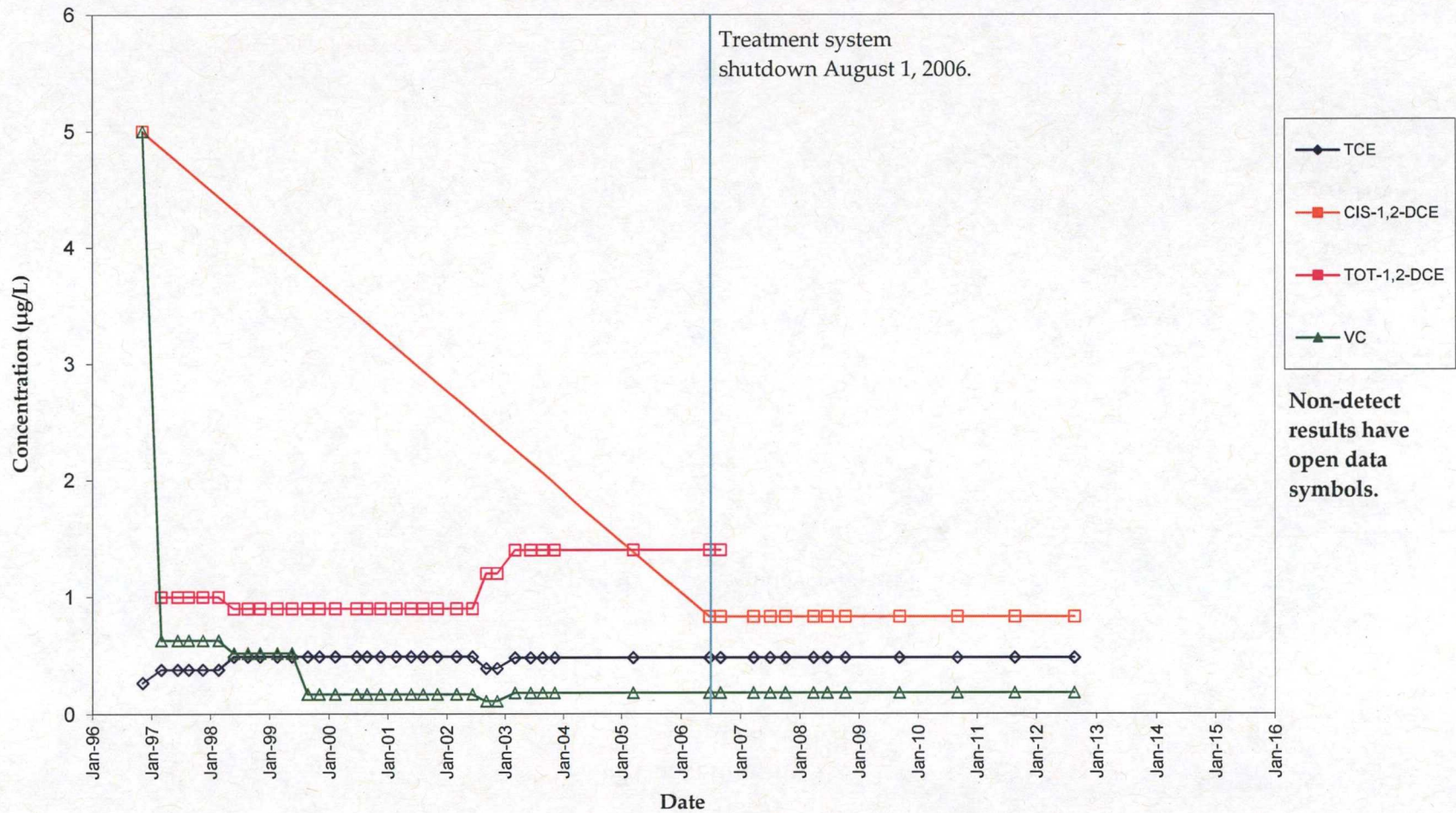
RM-204D VOC Concentration Trends Lemberger Landfill



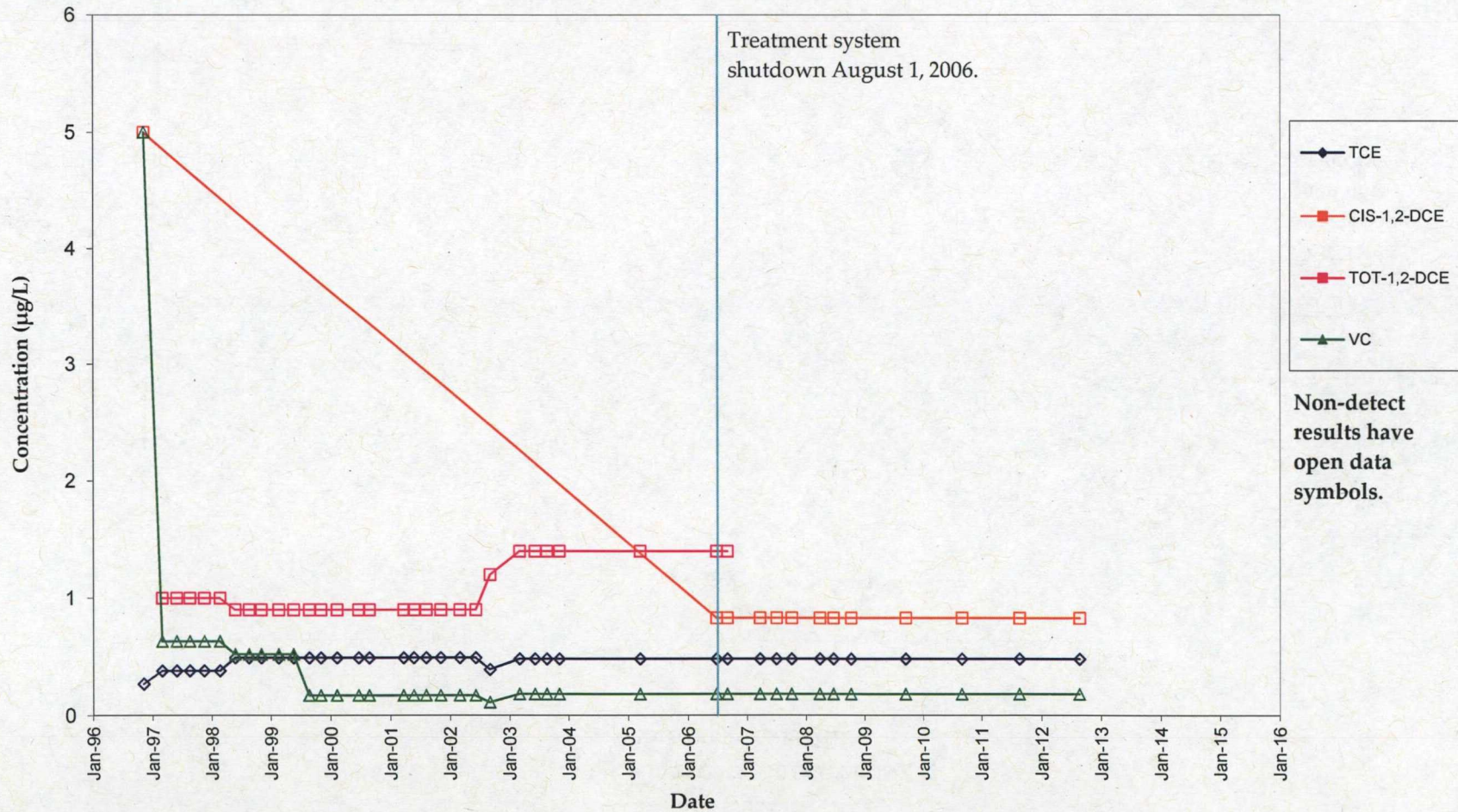
RM-204I
VOC Concentration Trends
Lemberger Landfill



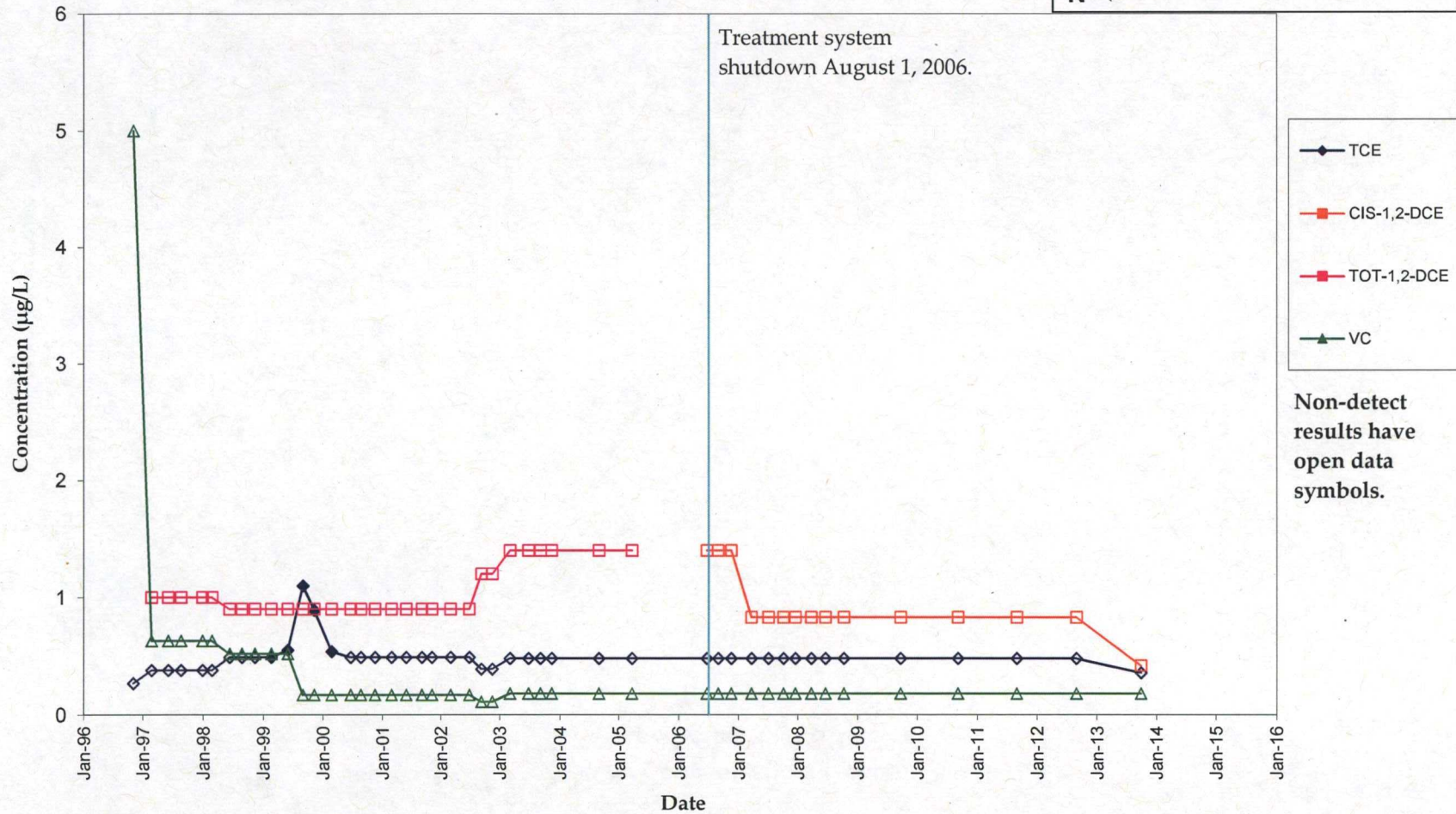
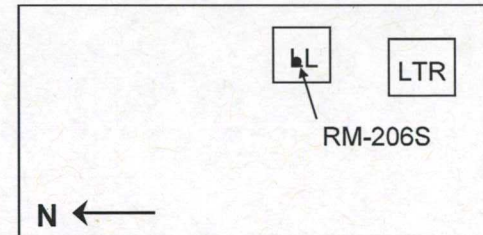
RM-205D
VOC Concentration Trends
Lemberger Landfill



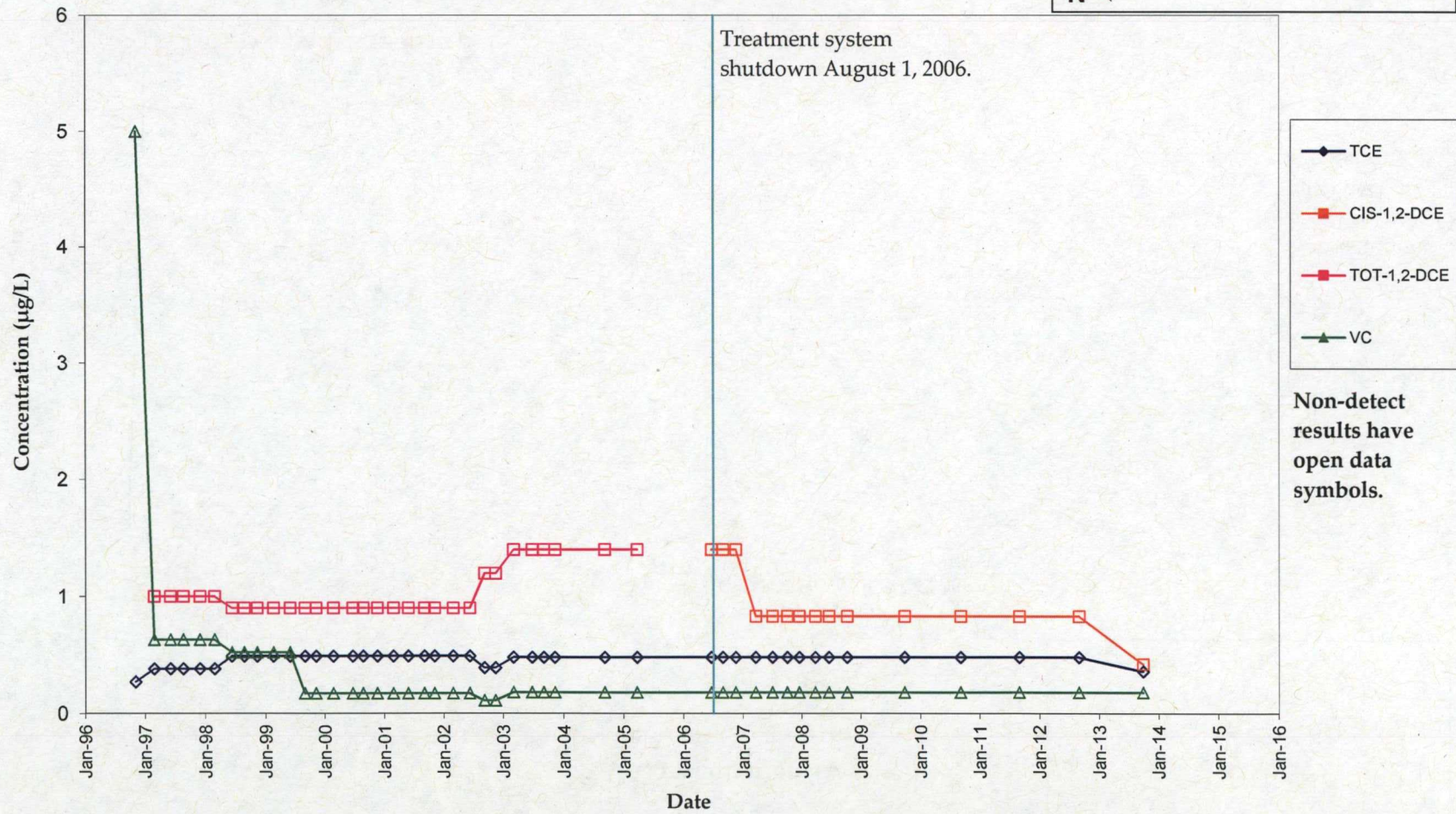
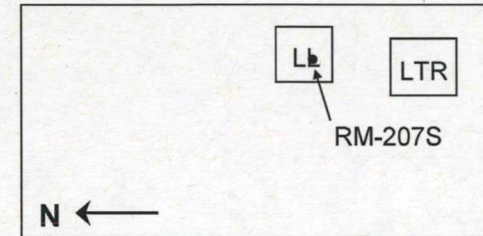
RM-205I
VOC Concentration Trends
Lemberger Landfill



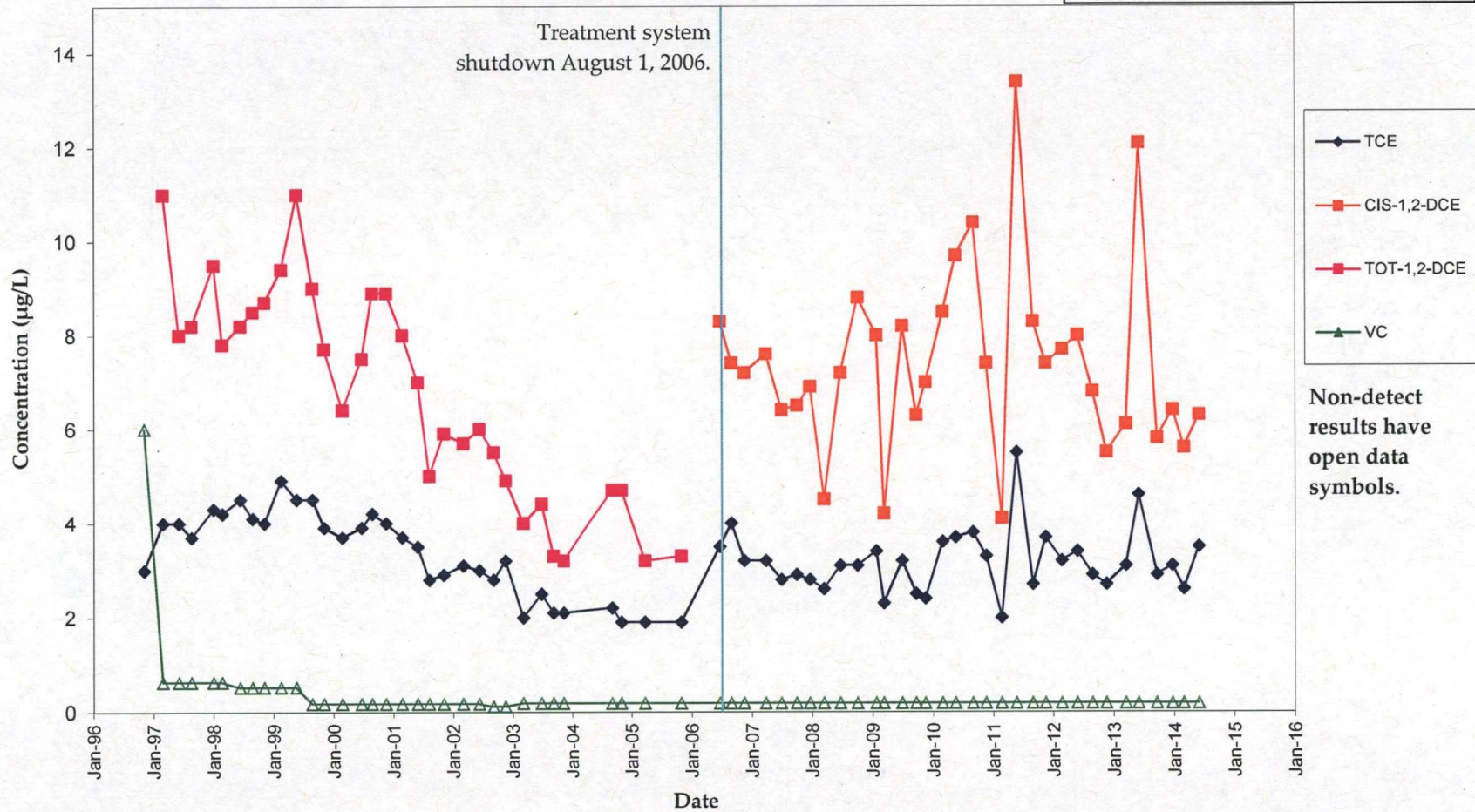
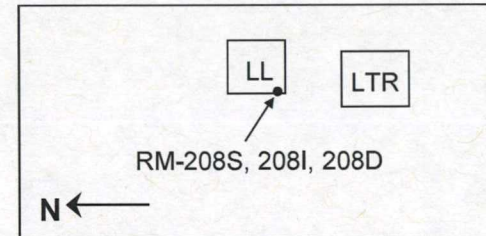
RM-206S VOC Concentration Trends Lemberger Landfill



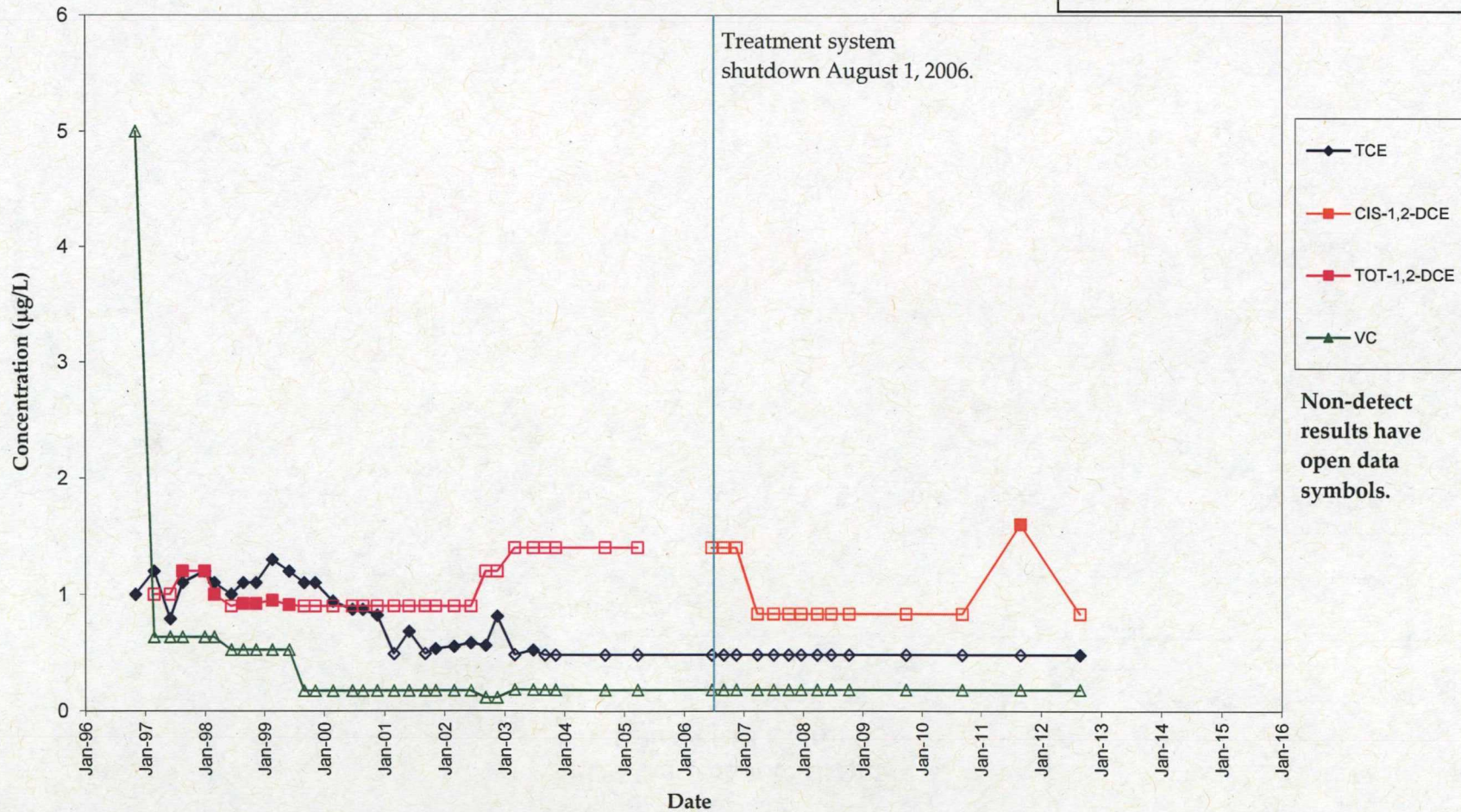
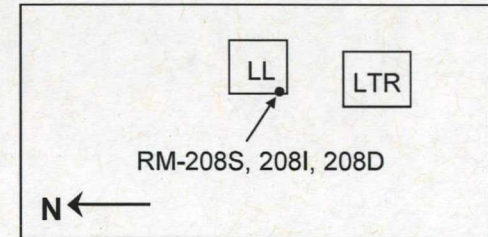
RM-207S VOC Concentration Trends Lemberger Landfill



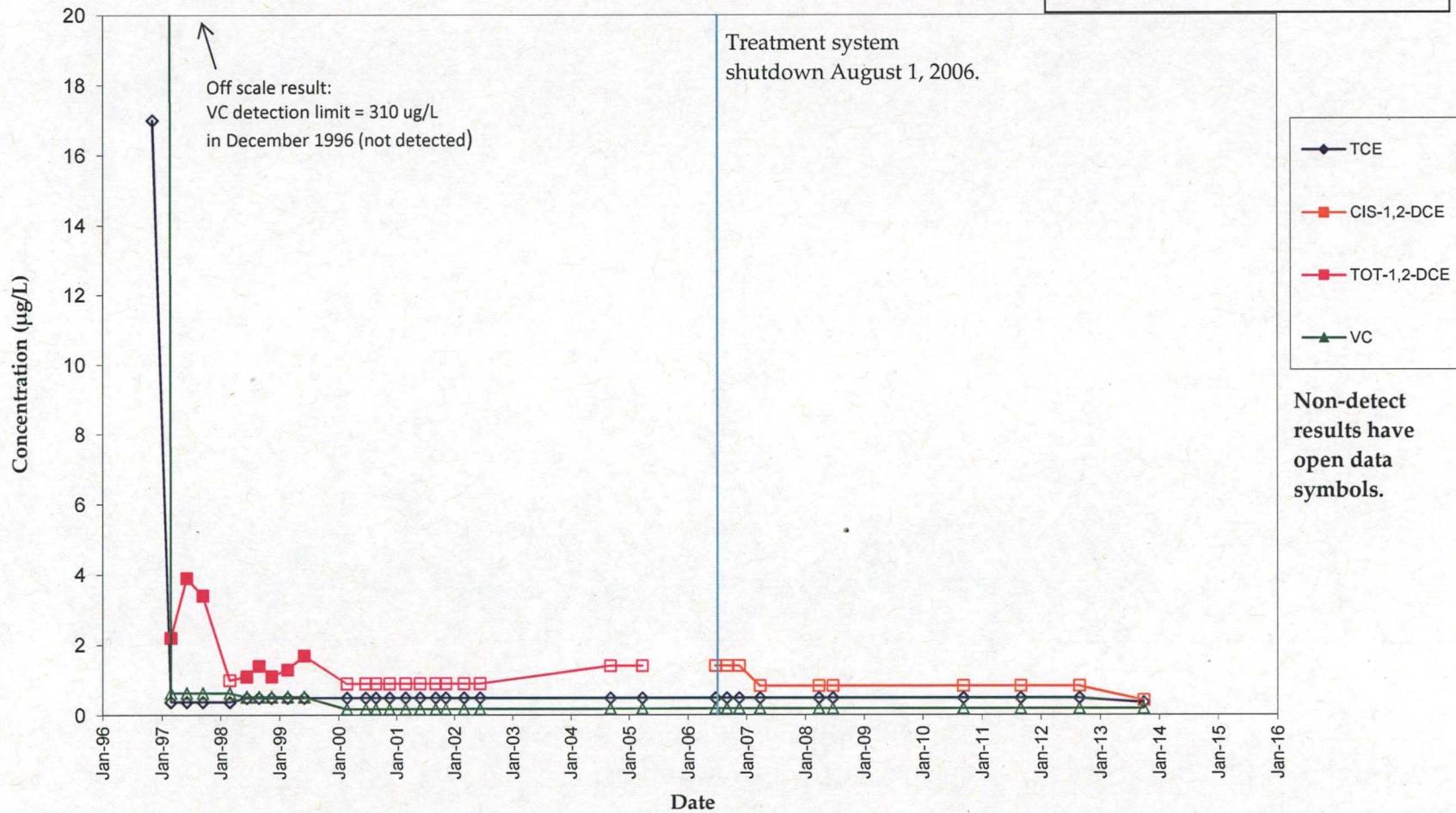
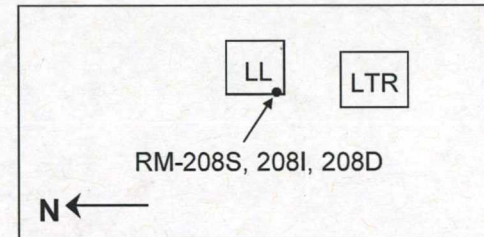
RM-208D VOC Concentration Trends Lemberger Landfill



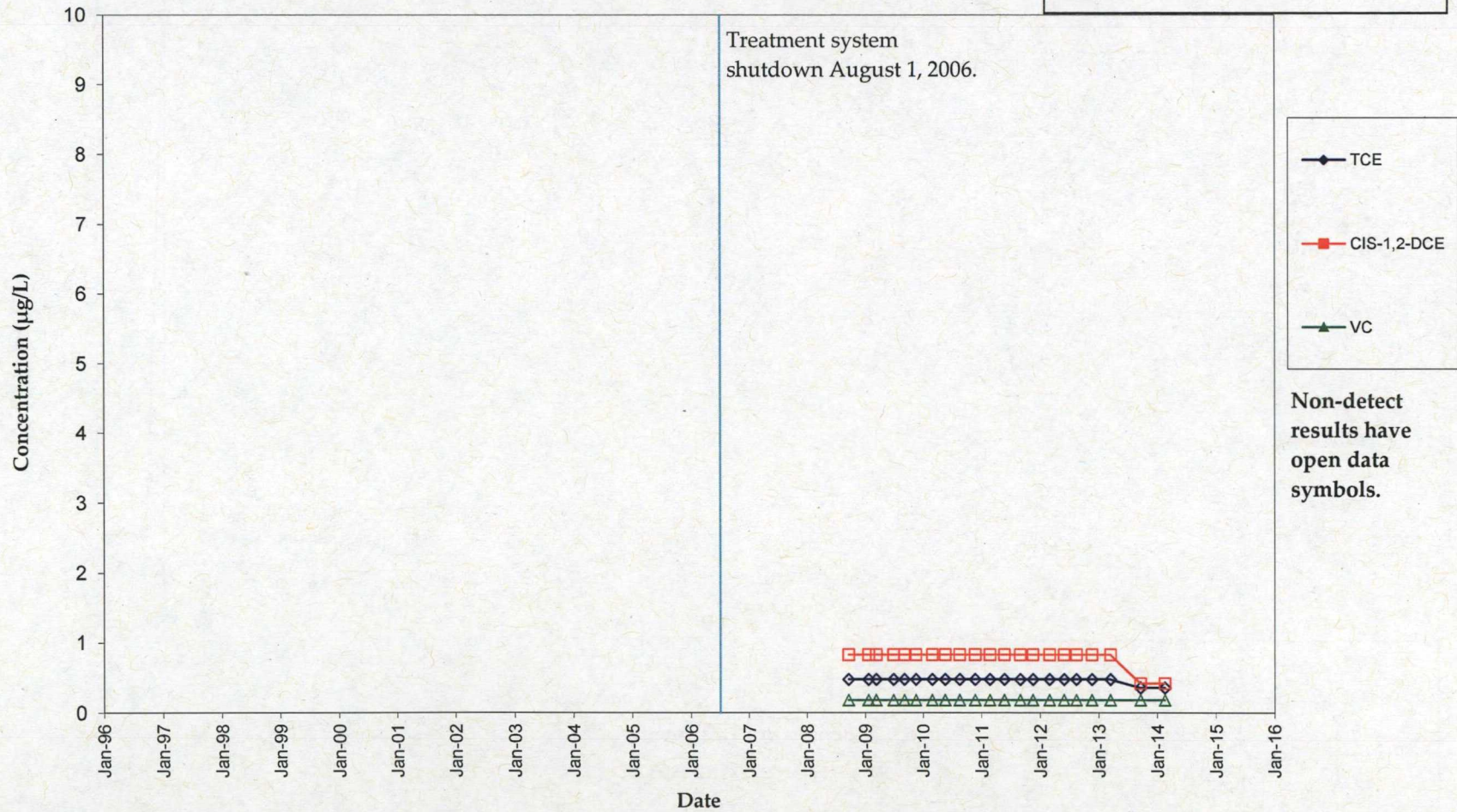
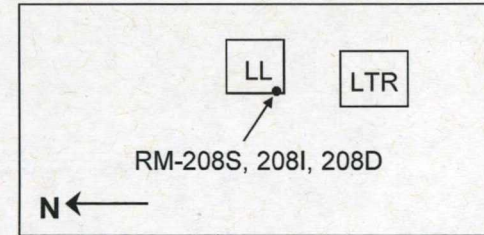
RM-208I VOC Concentration Trends Lemberger Landfill



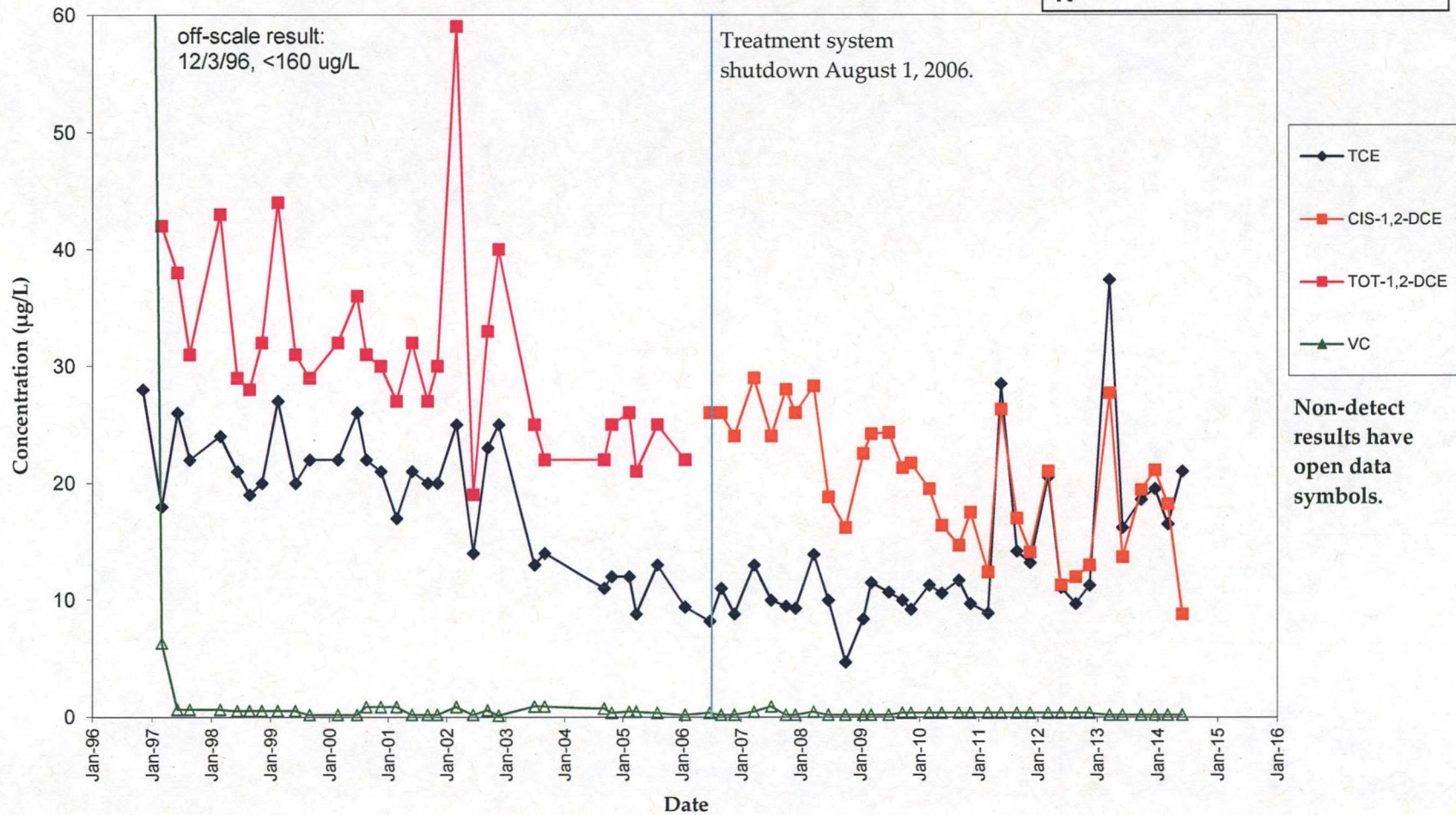
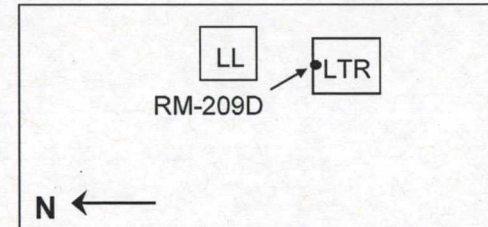
RM-208S VOC Concentration Trends Lemberger Landfill



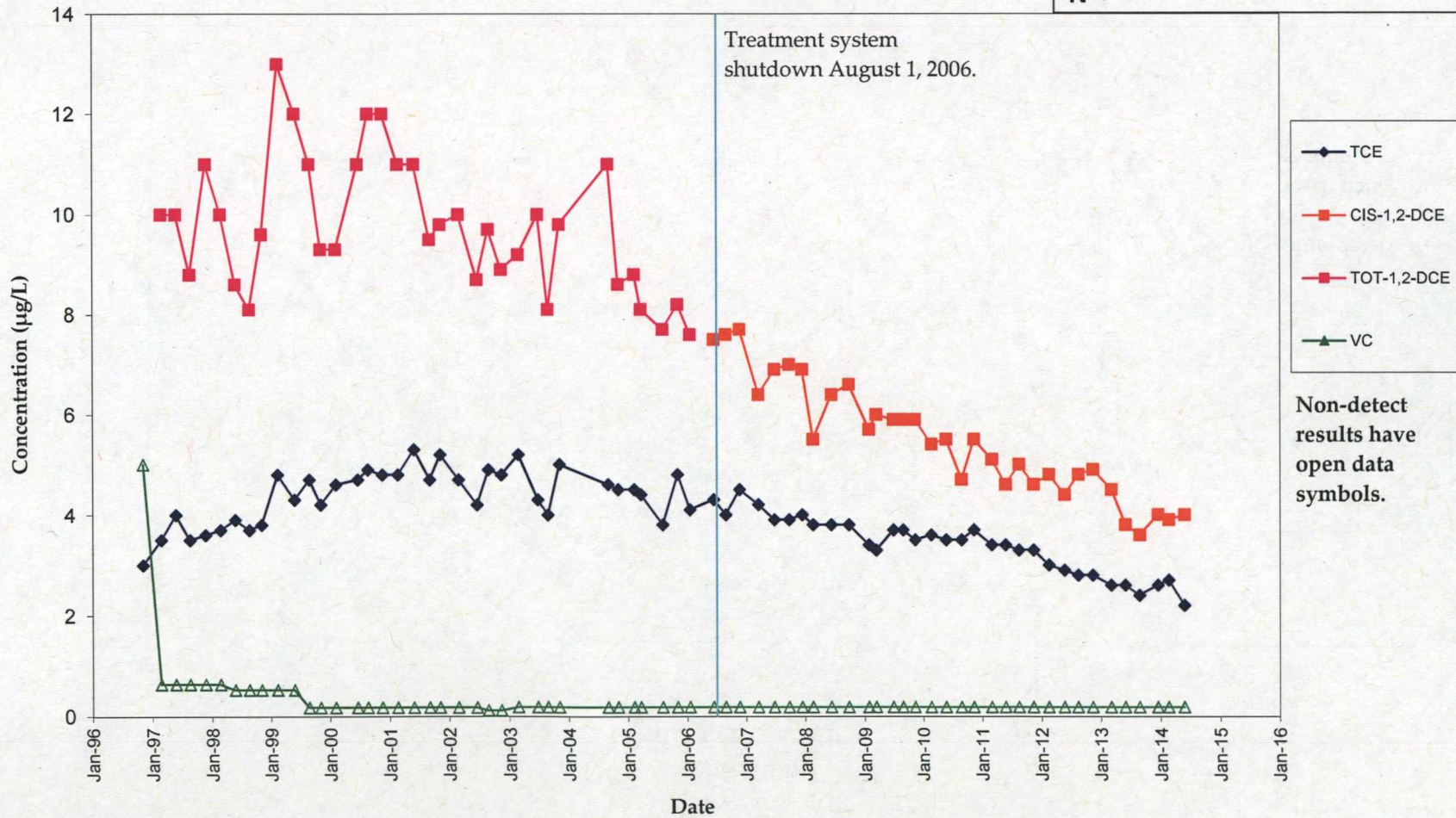
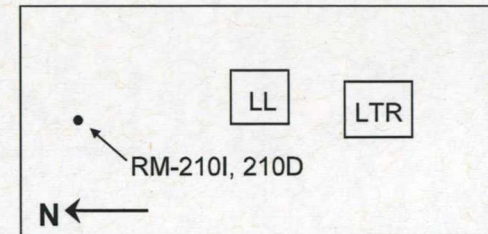
RM-208XD VOC Concentration Trends Lemberger Landfill



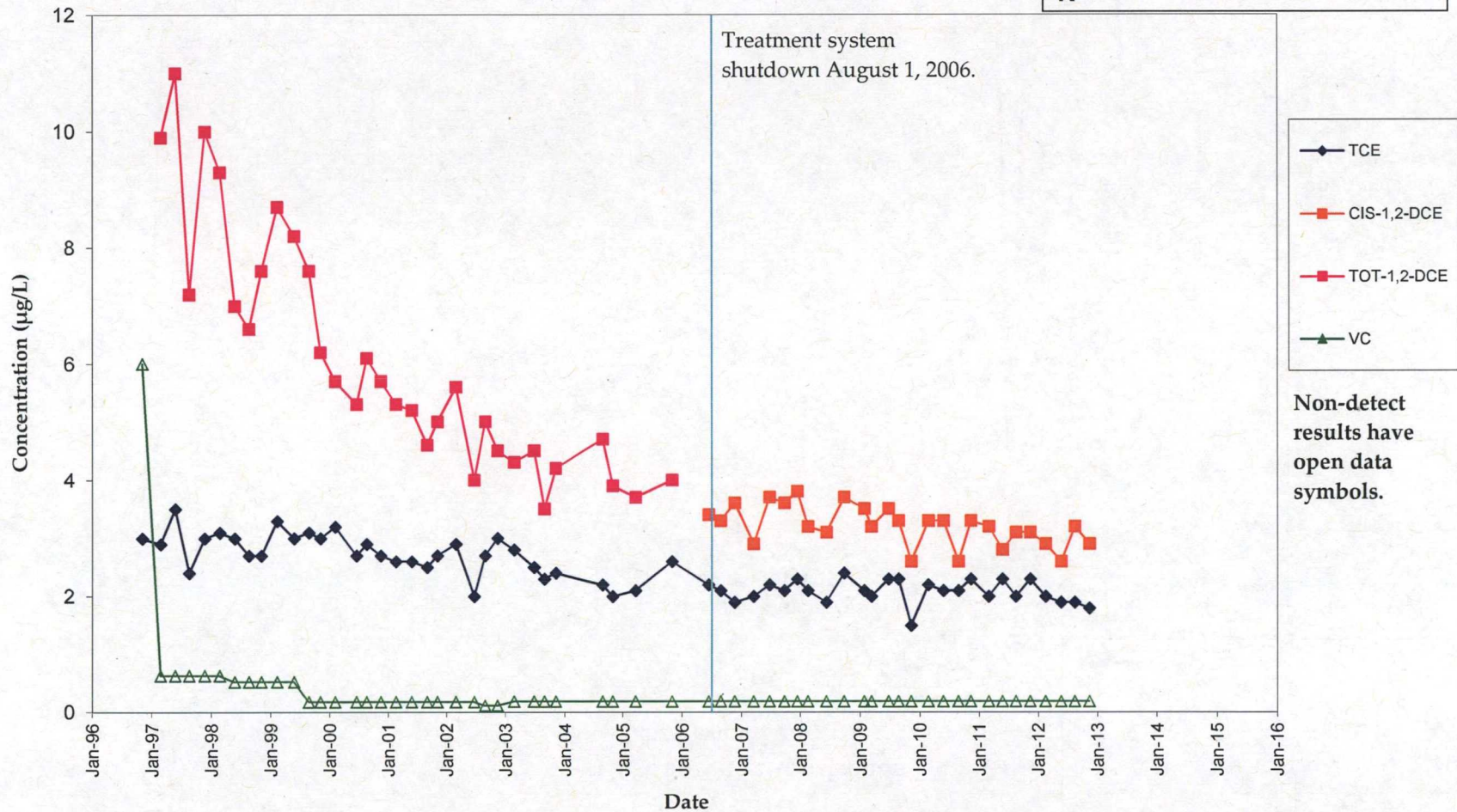
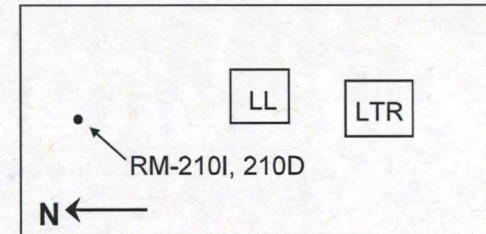
RM-209D VOC Concentration Trends Lemberger Landfill



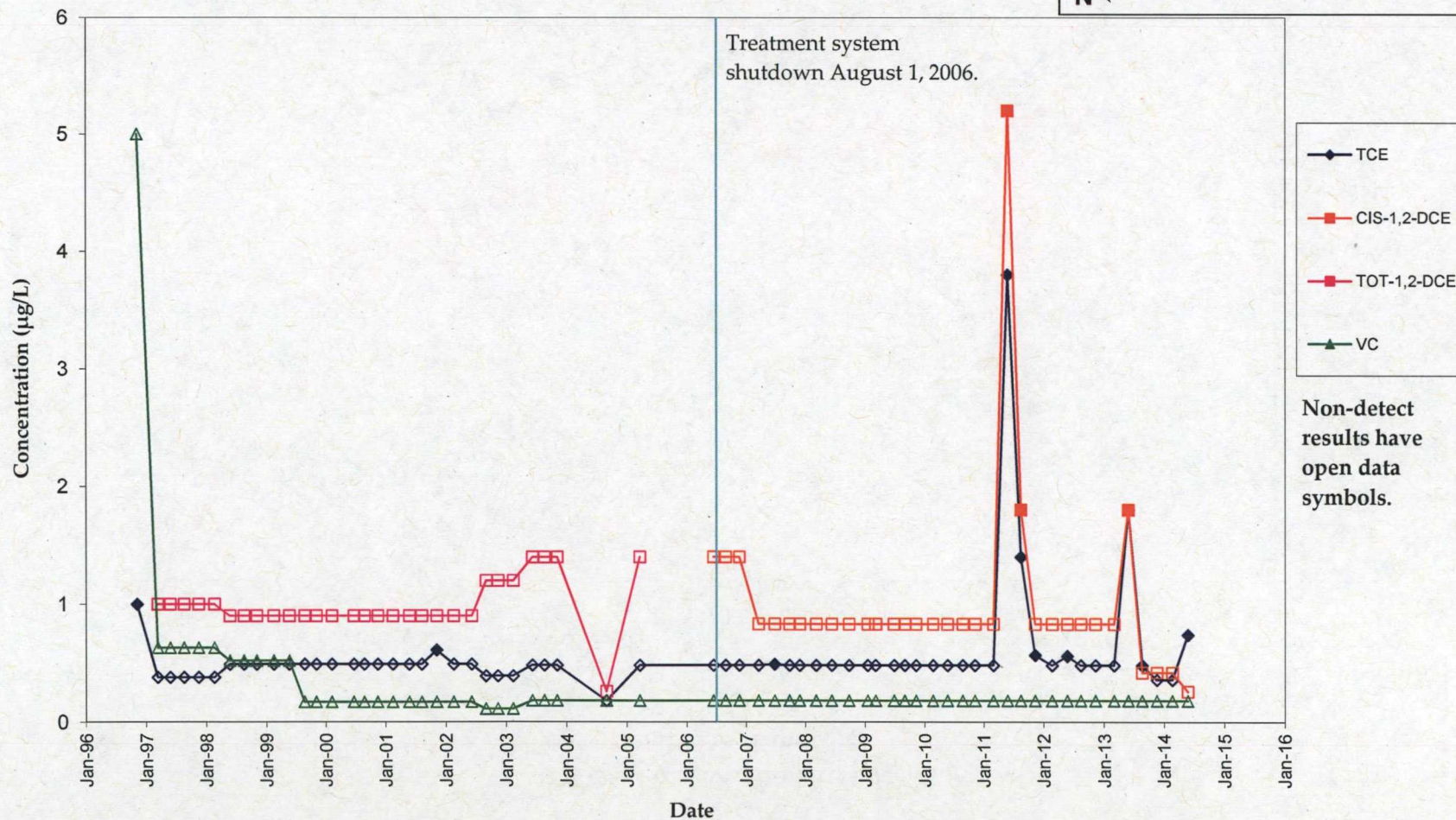
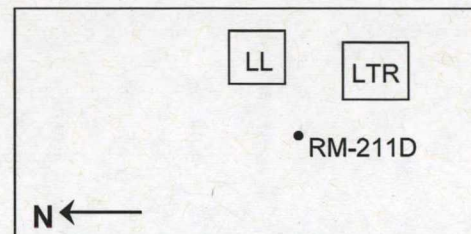
RM-210D VOC Concentration Trends Lemberger Landfill



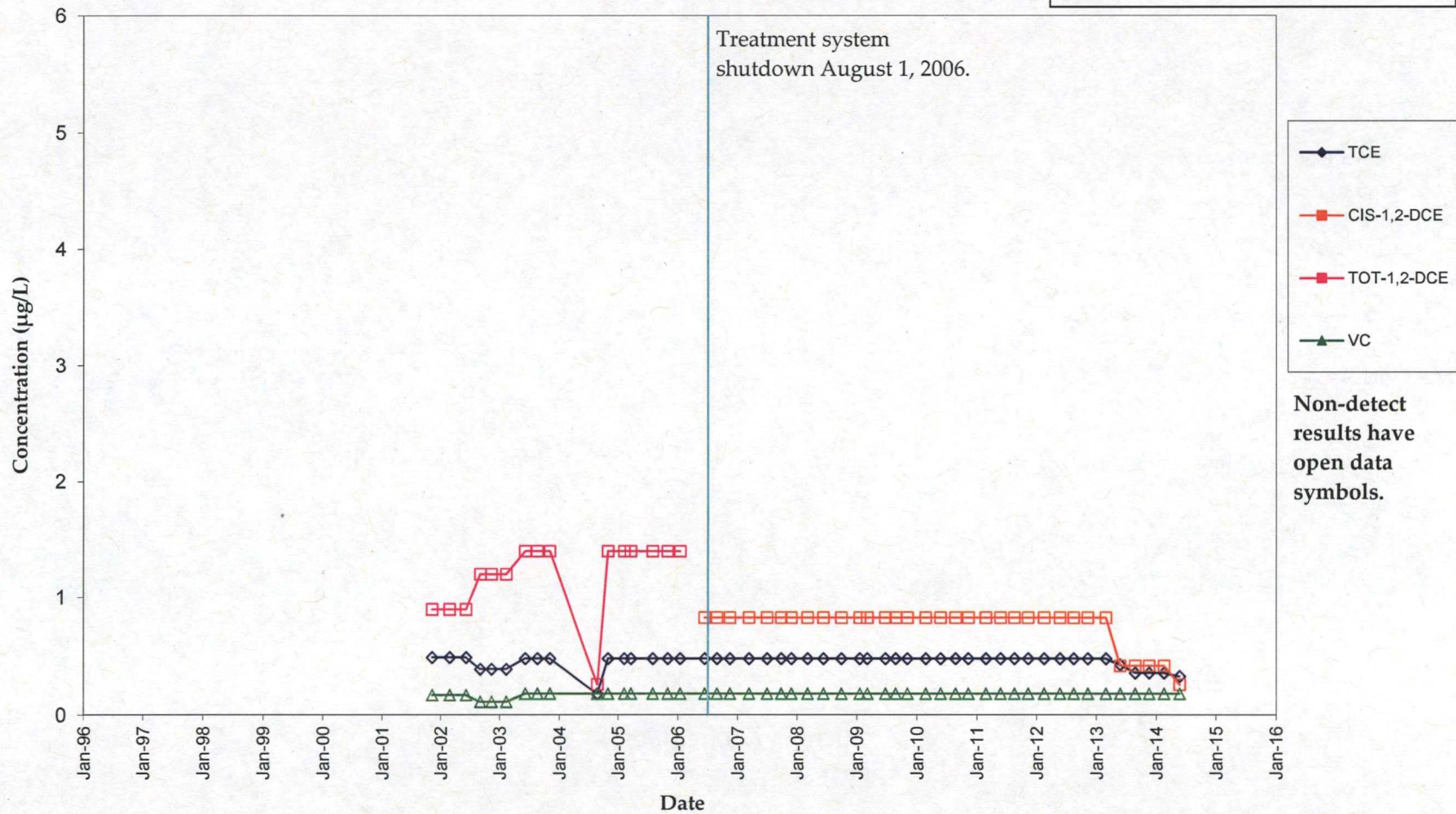
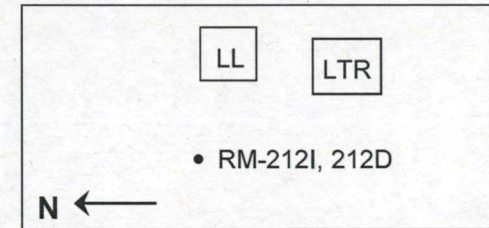
RM-210I VOC Concentration Trends Lemberger Landfill



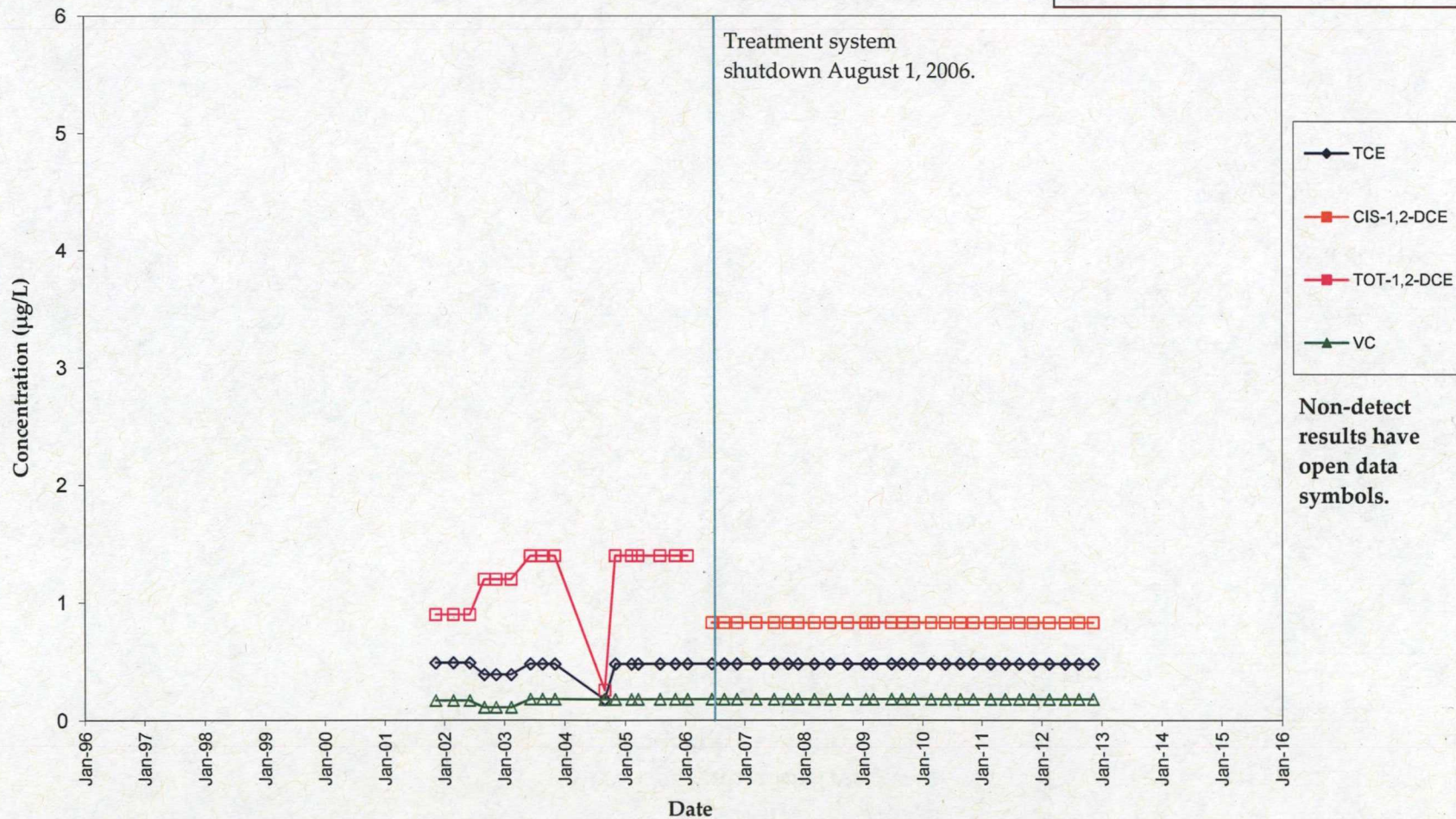
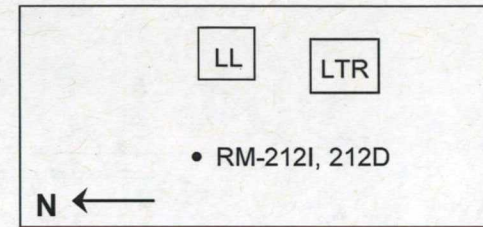
RM-211D VOC Concentration Trends Lemberger Landfill



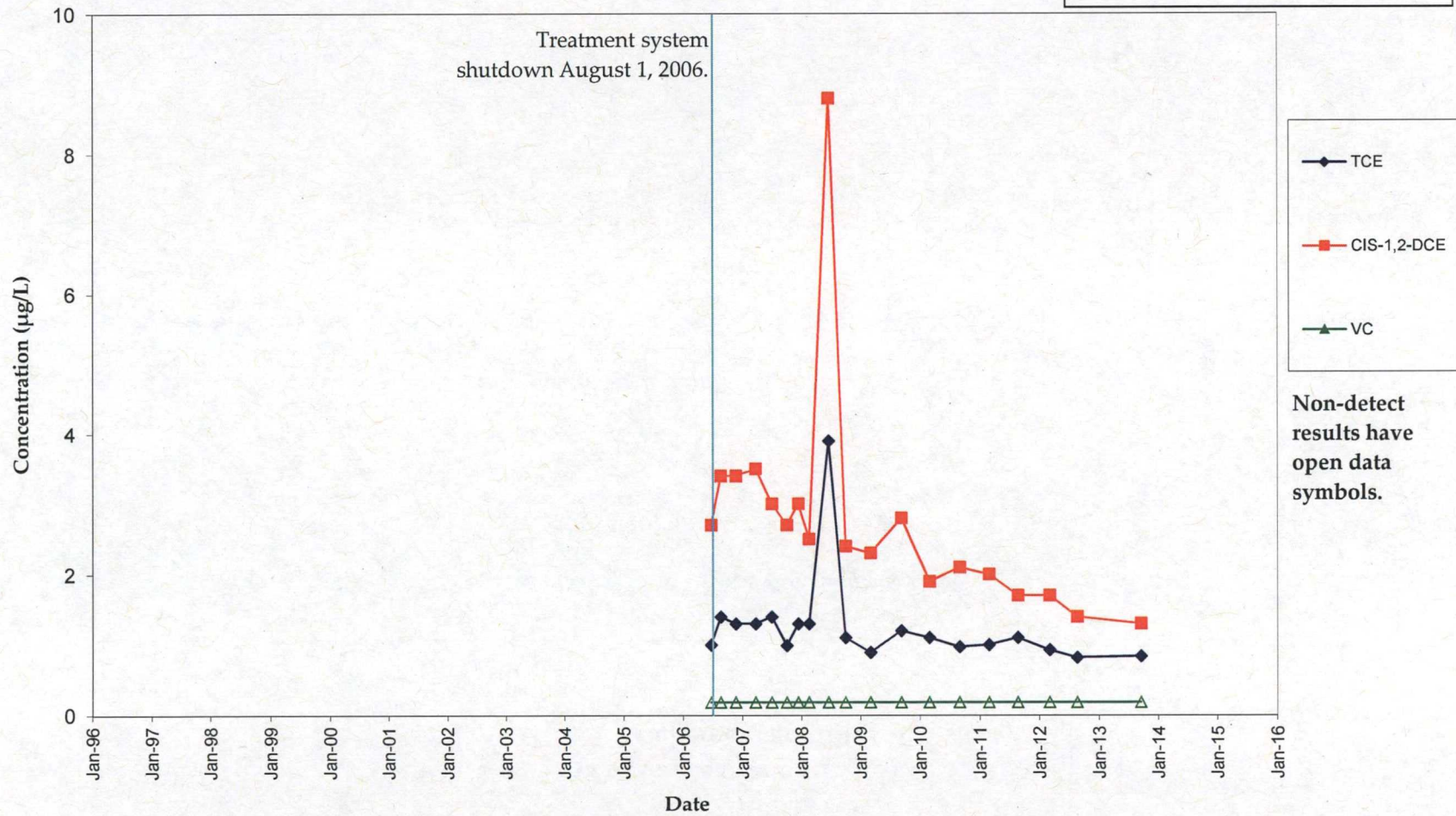
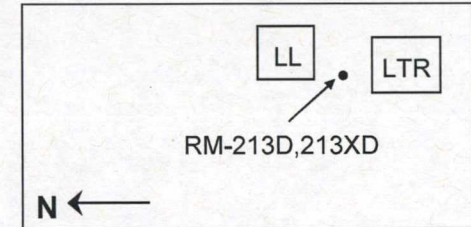
RM-212D
VOC Concentration Trends
Lemberger Landfill



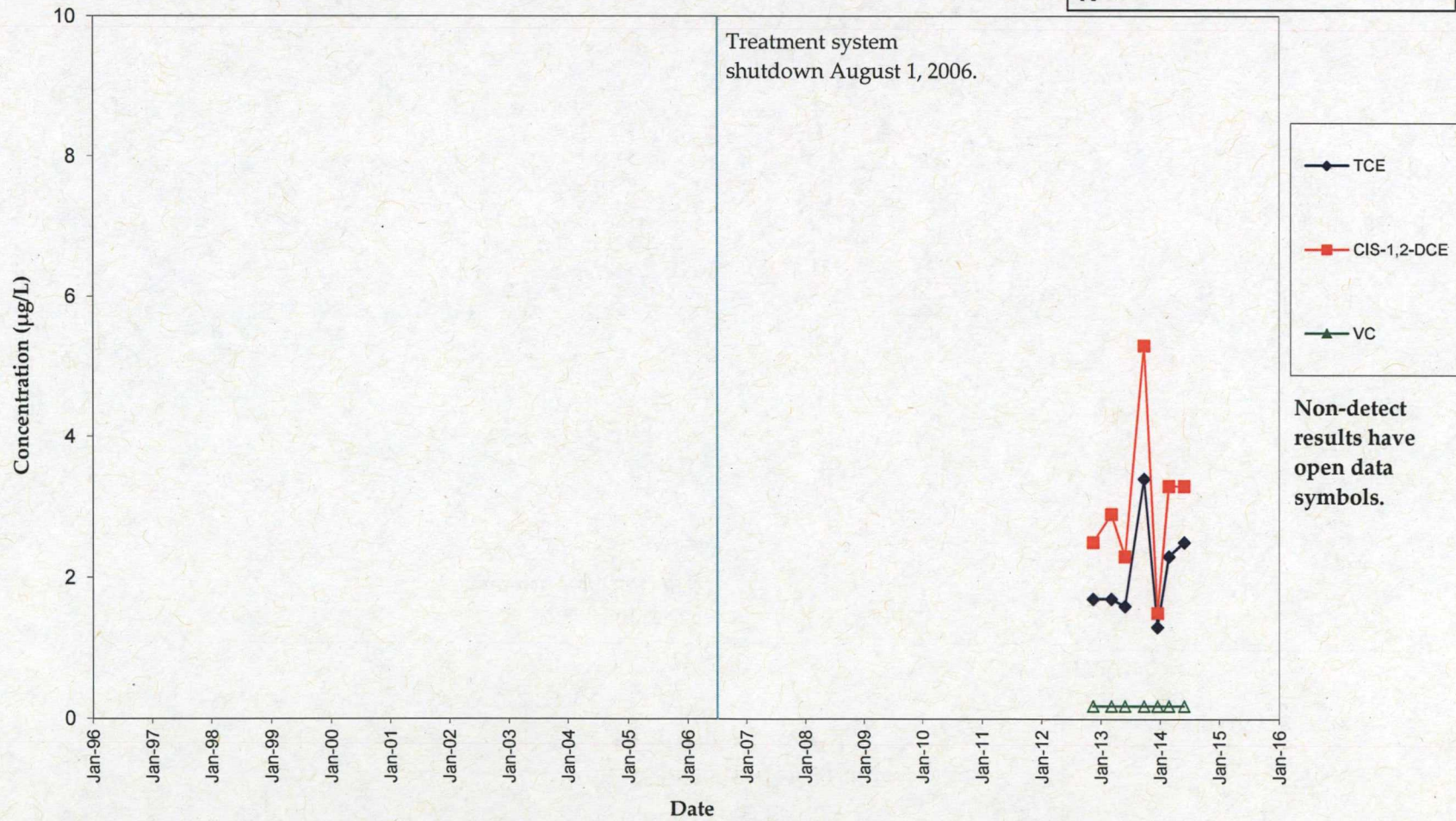
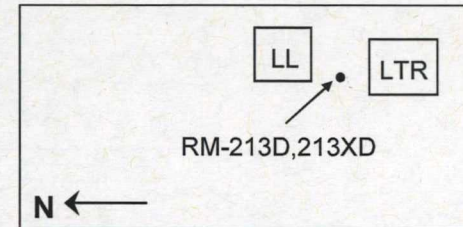
RM-212I VOC Concentration Trends Lemberger Landfill



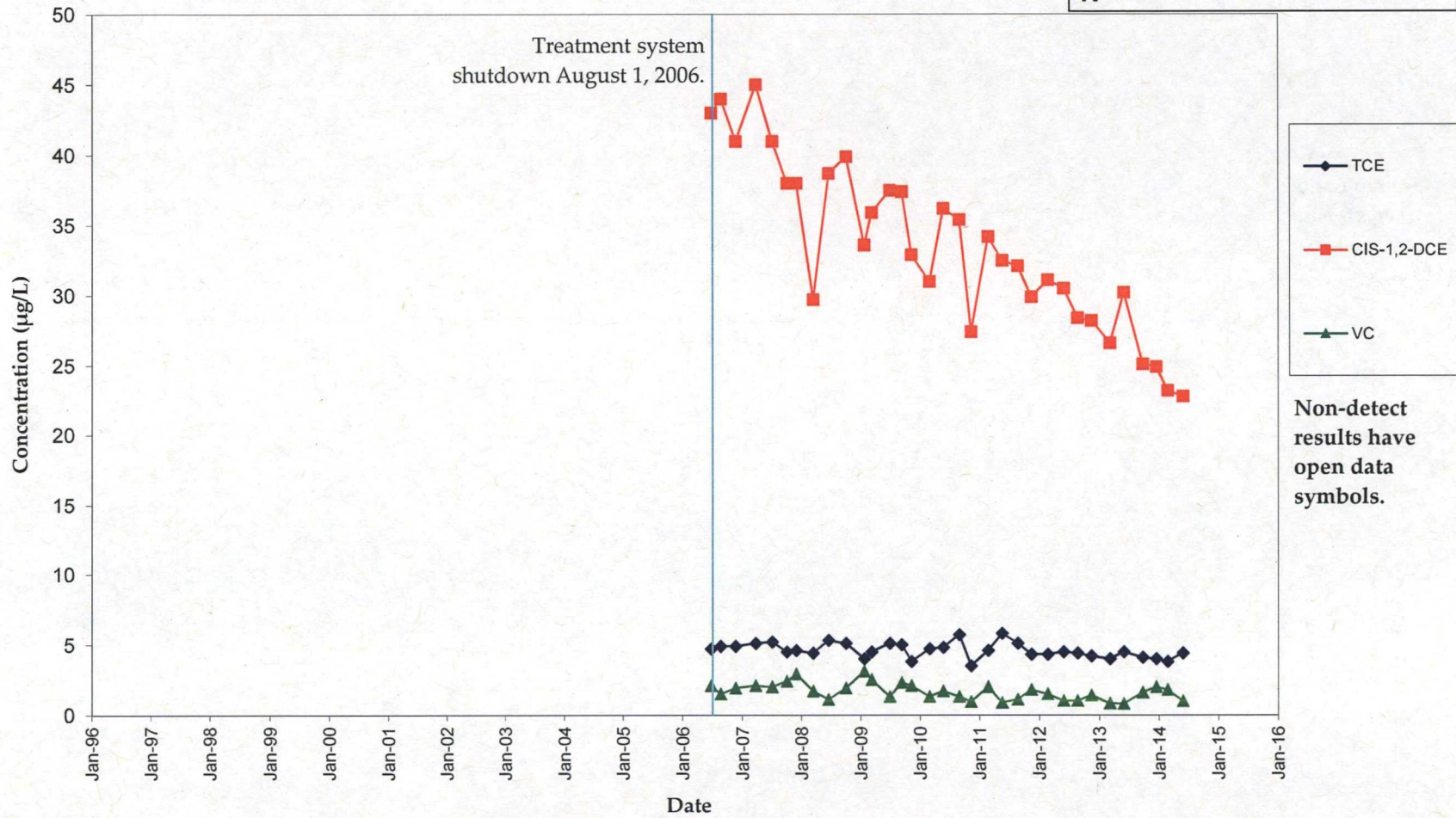
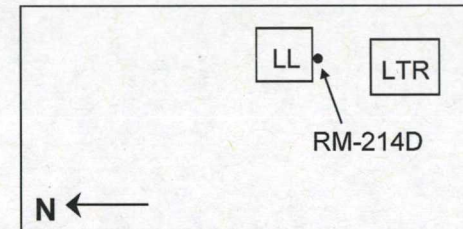
RM-213D VOC Concentration Trends Lemberger Landfill



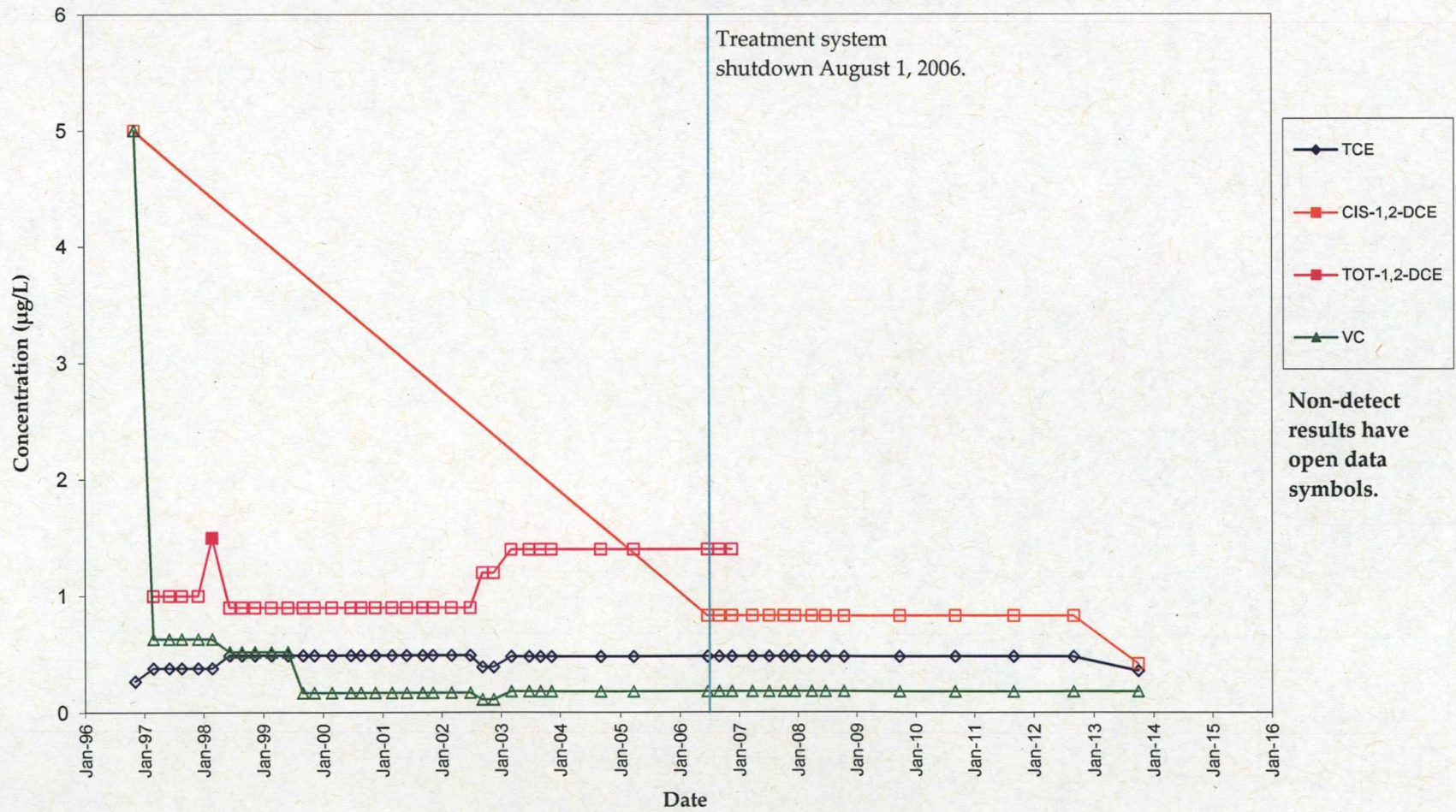
RM-213XD VOC Concentration Trends Lemberger Landfill



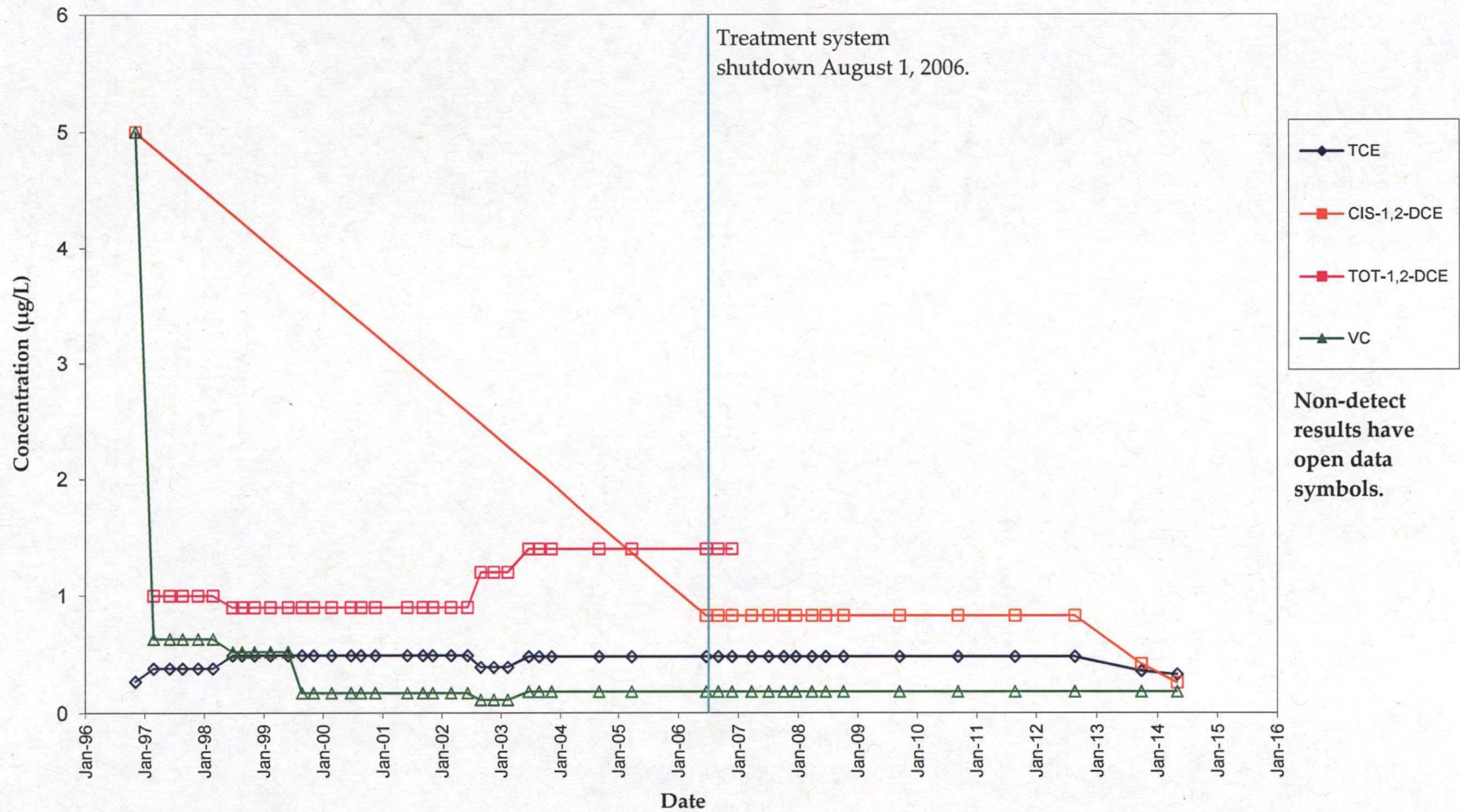
RM-214D VOC Concentration Trends Lemberger Landfill



RM-301S
VOC Concentration Trends
Lemberger Landfill



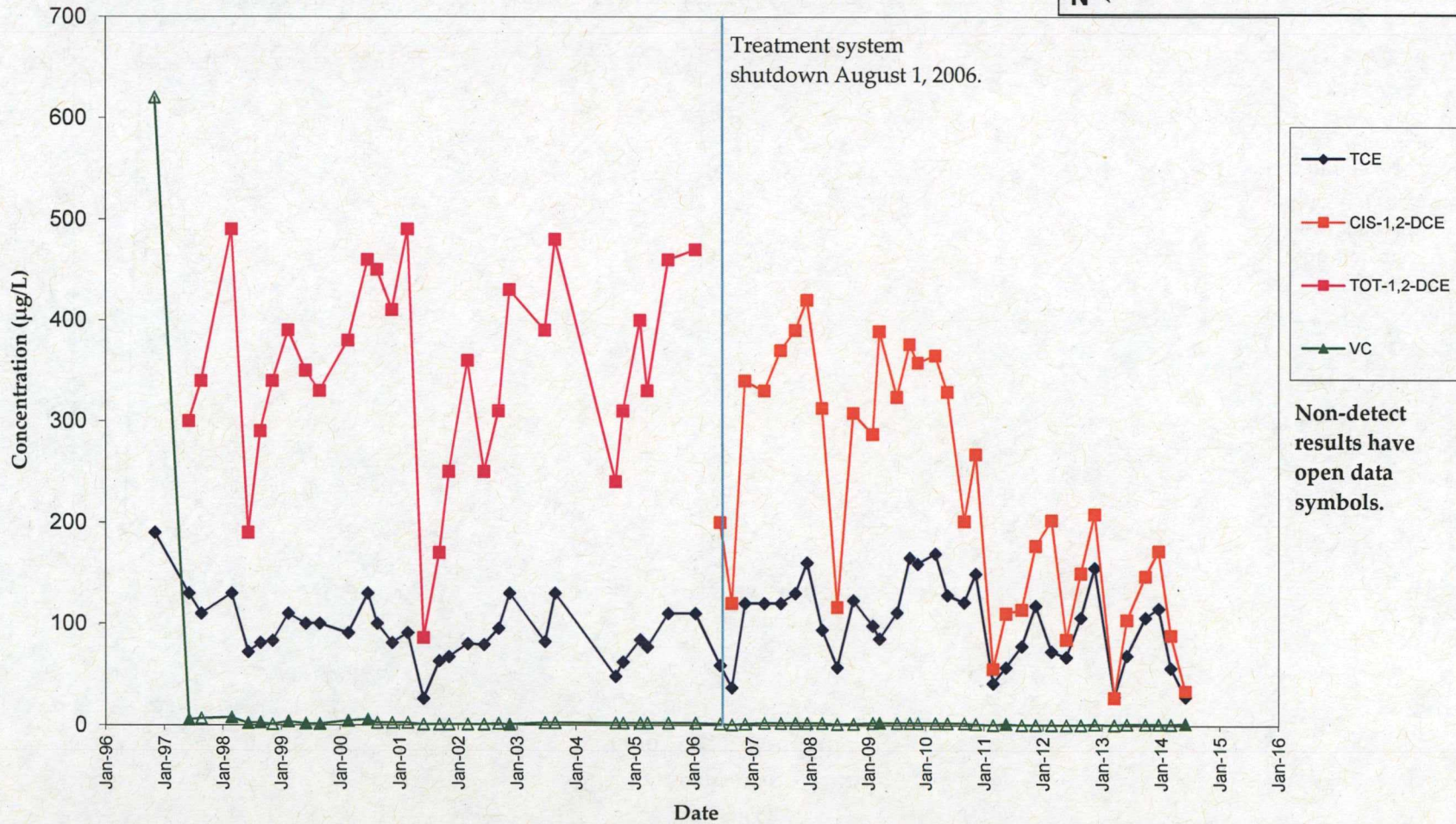
RM-302S
VOC Concentration Trends
Lemberger Landfill



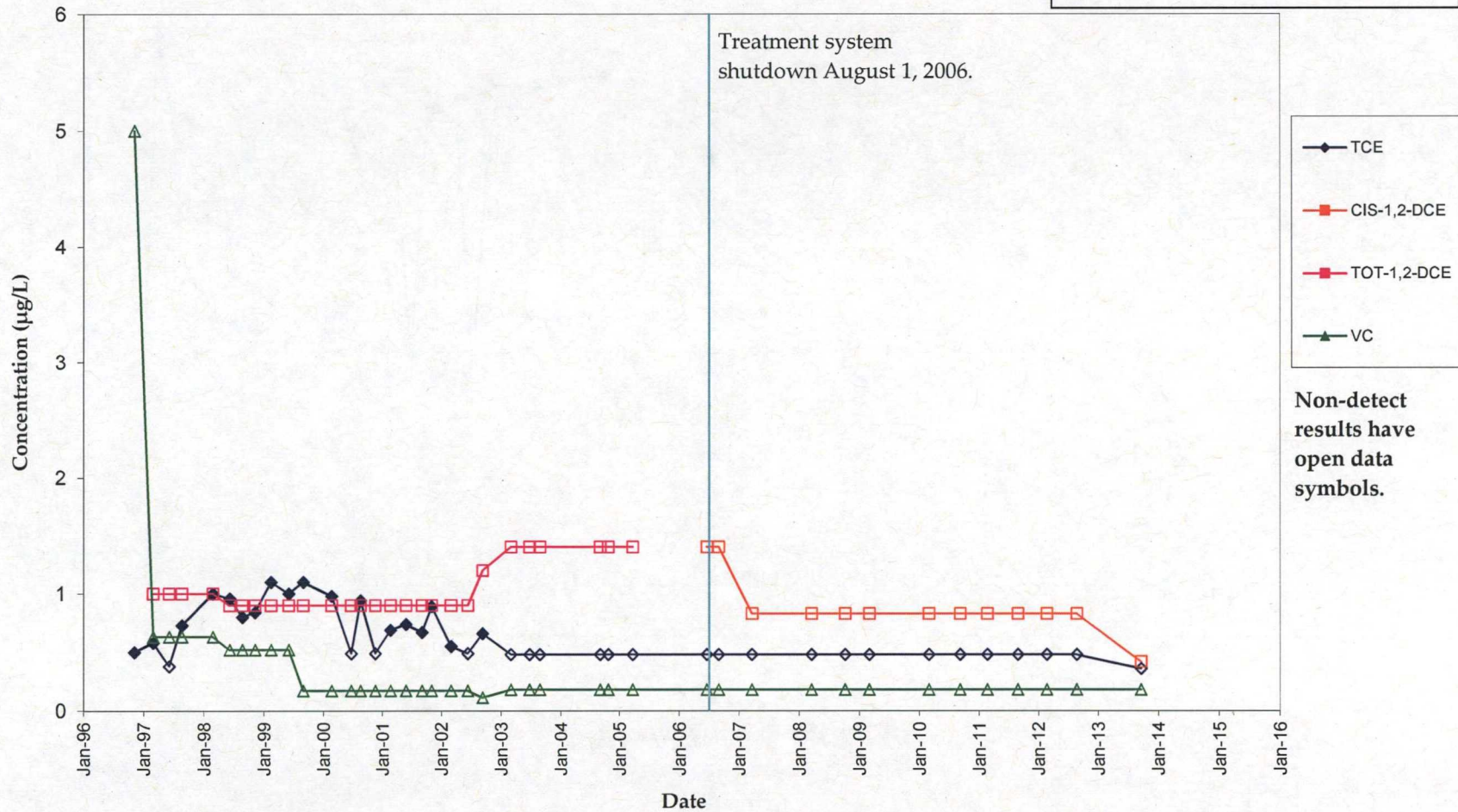
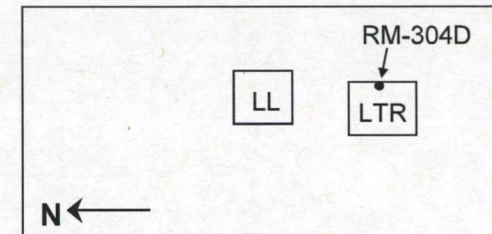
RM-303D VOC Concentration Trends Lemberger Landfill

LL → LTR
RM-303D

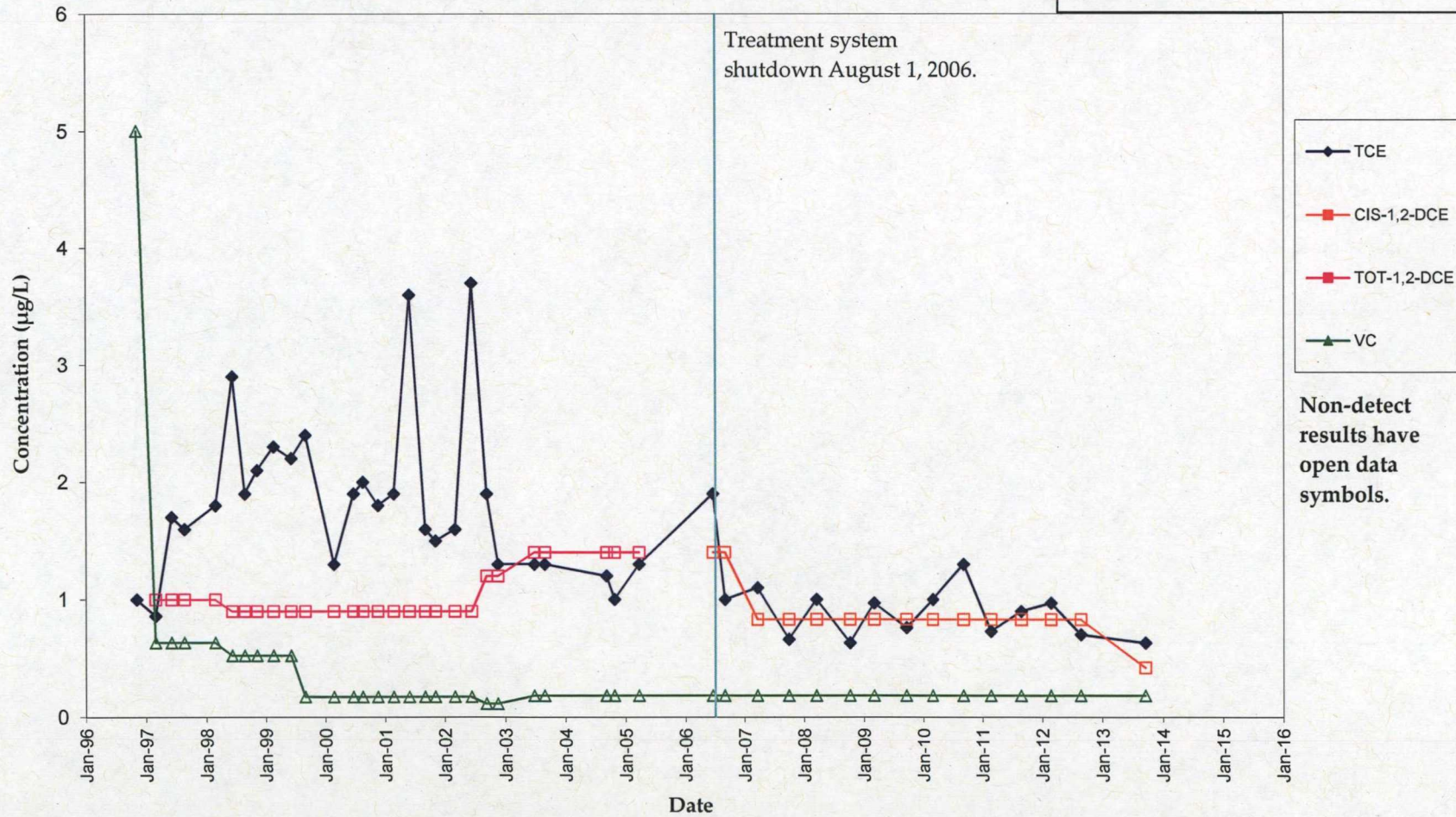
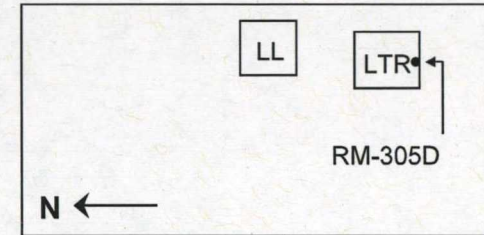
N ←



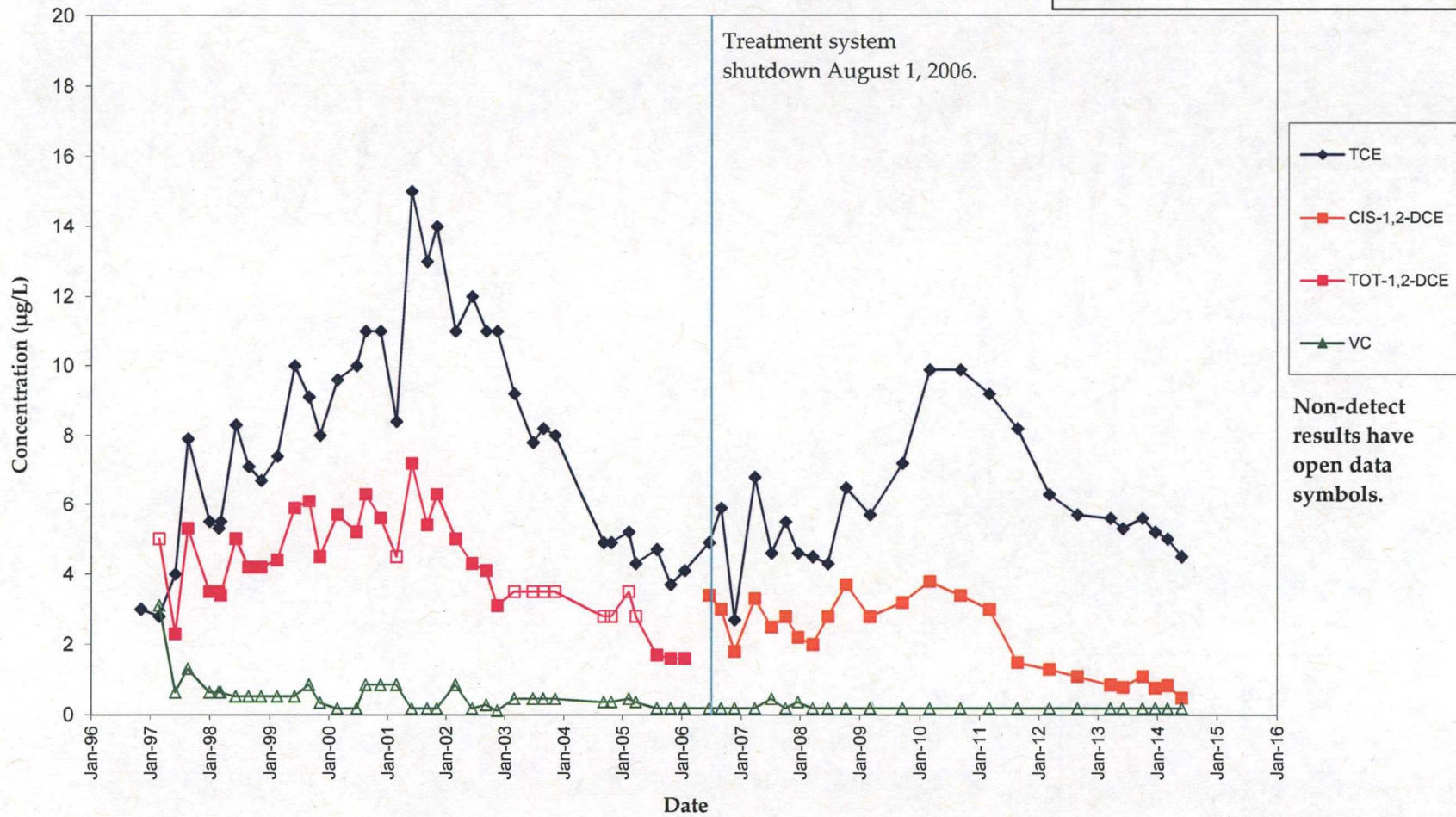
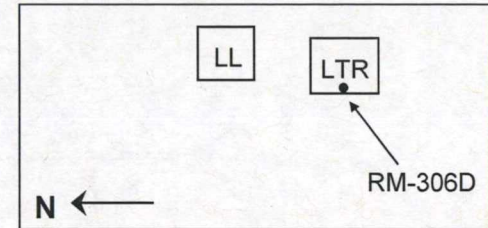
RM-304D VOC Concentration Trends Lemberger Landfill



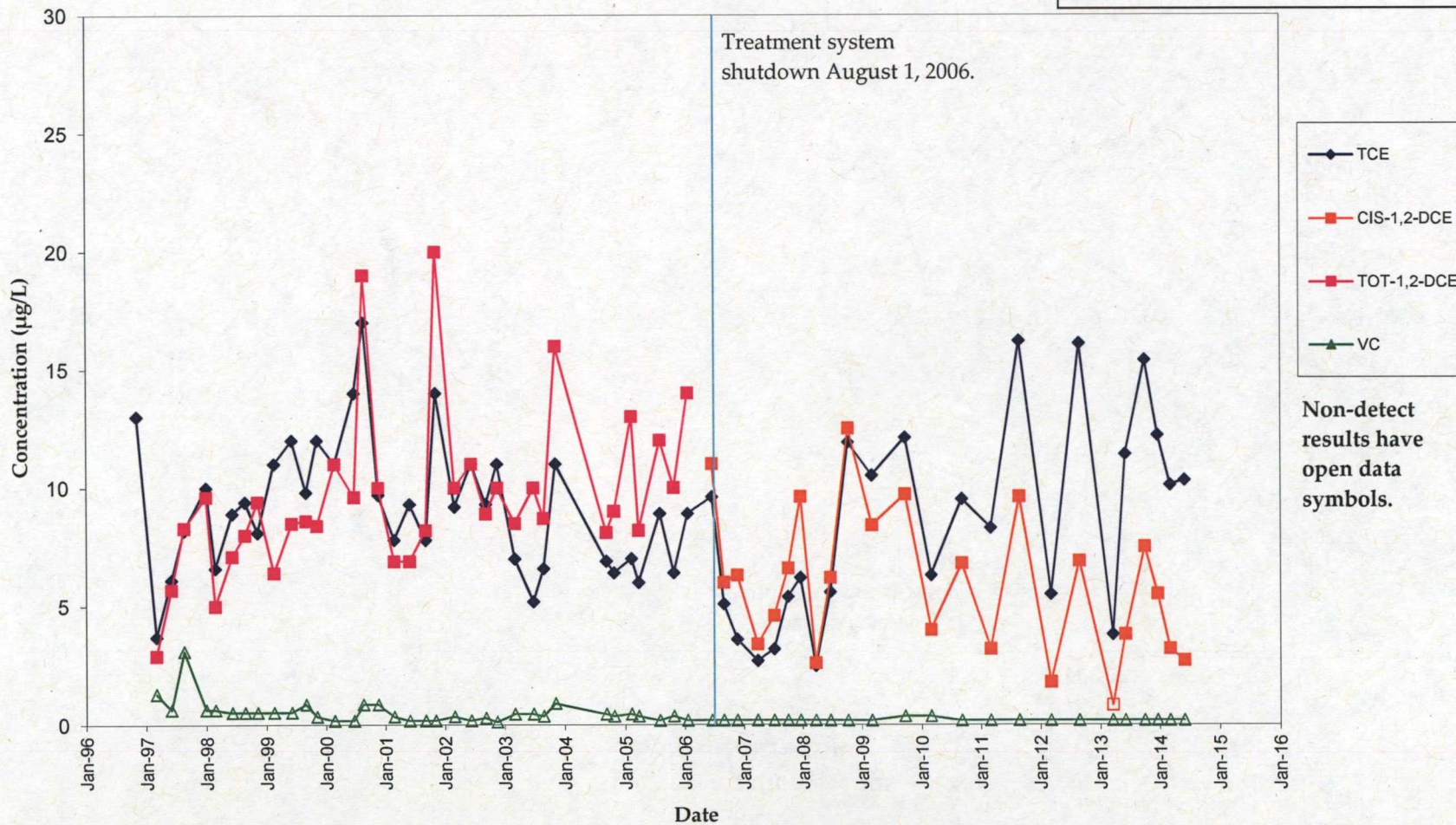
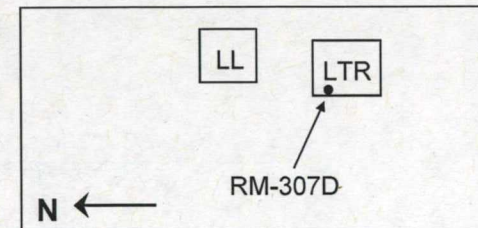
RM-305D VOC Concentration Trends Lemberger Landfill



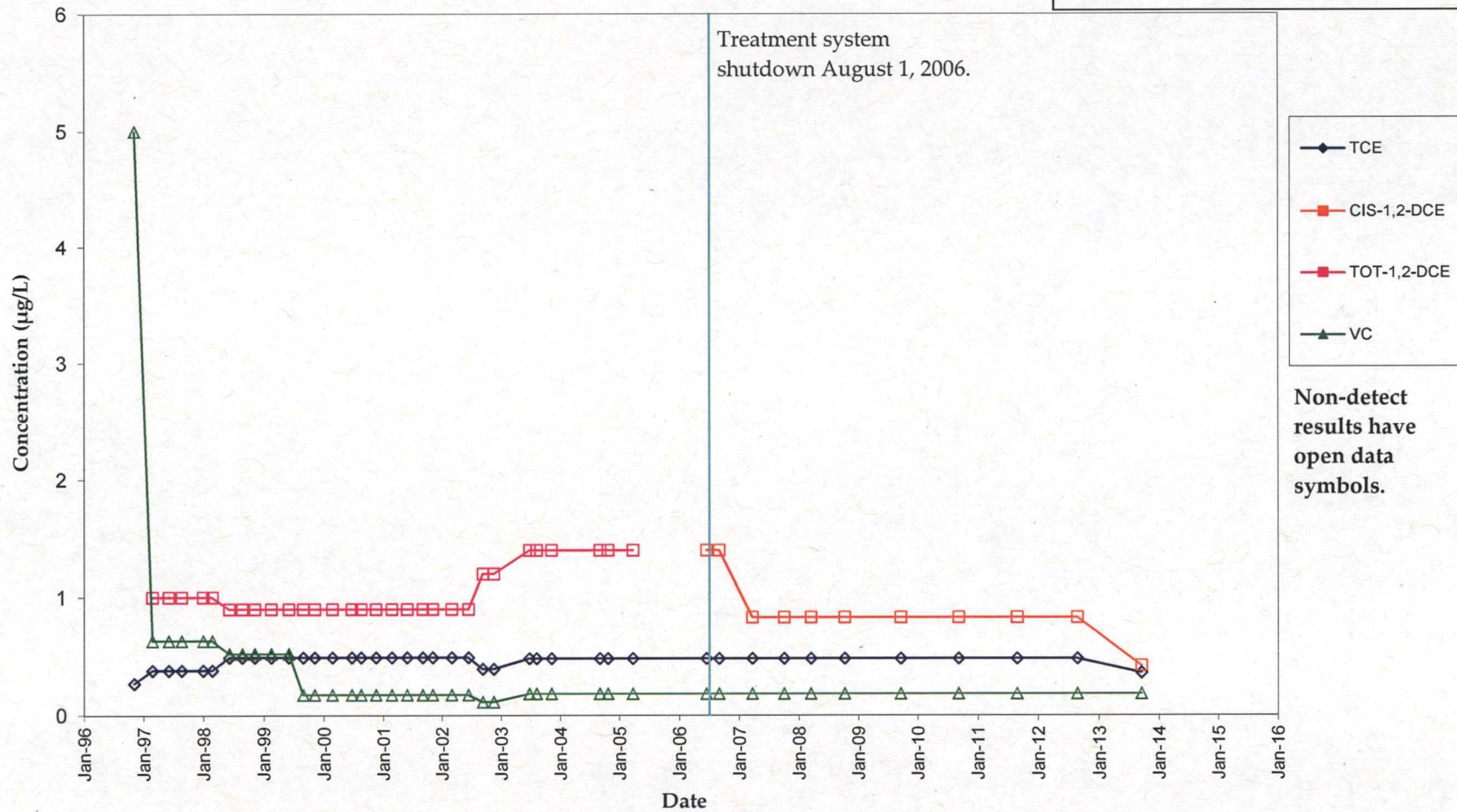
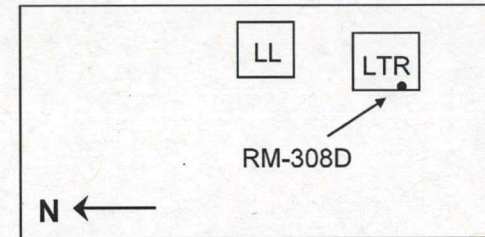
RM-306D VOC Concentration Trends Lemberger Landfill



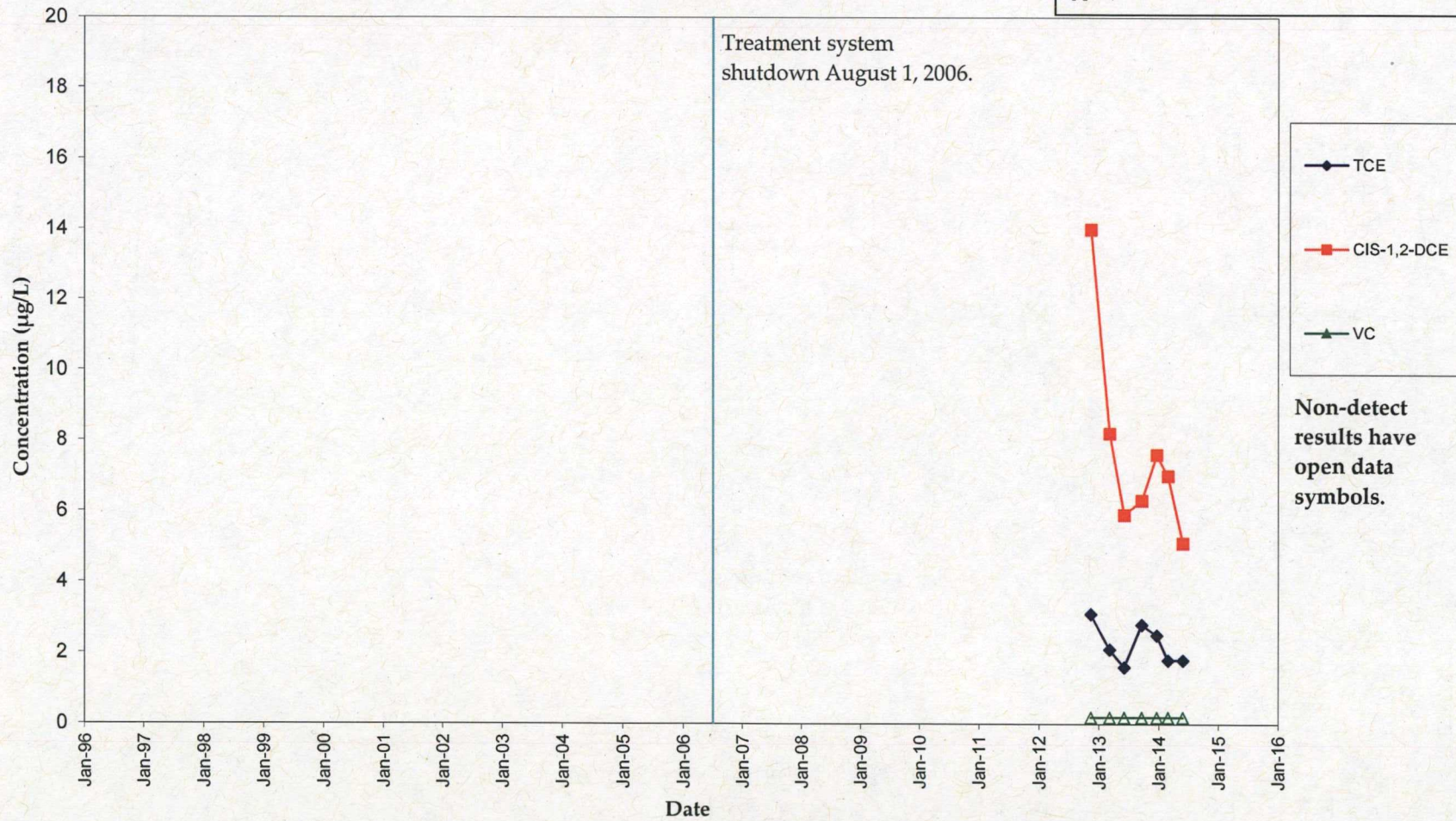
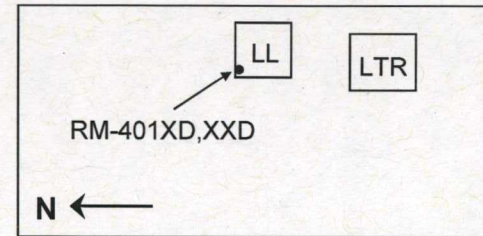
RM-307D VOC Concentration Trends Lemberger Landfill



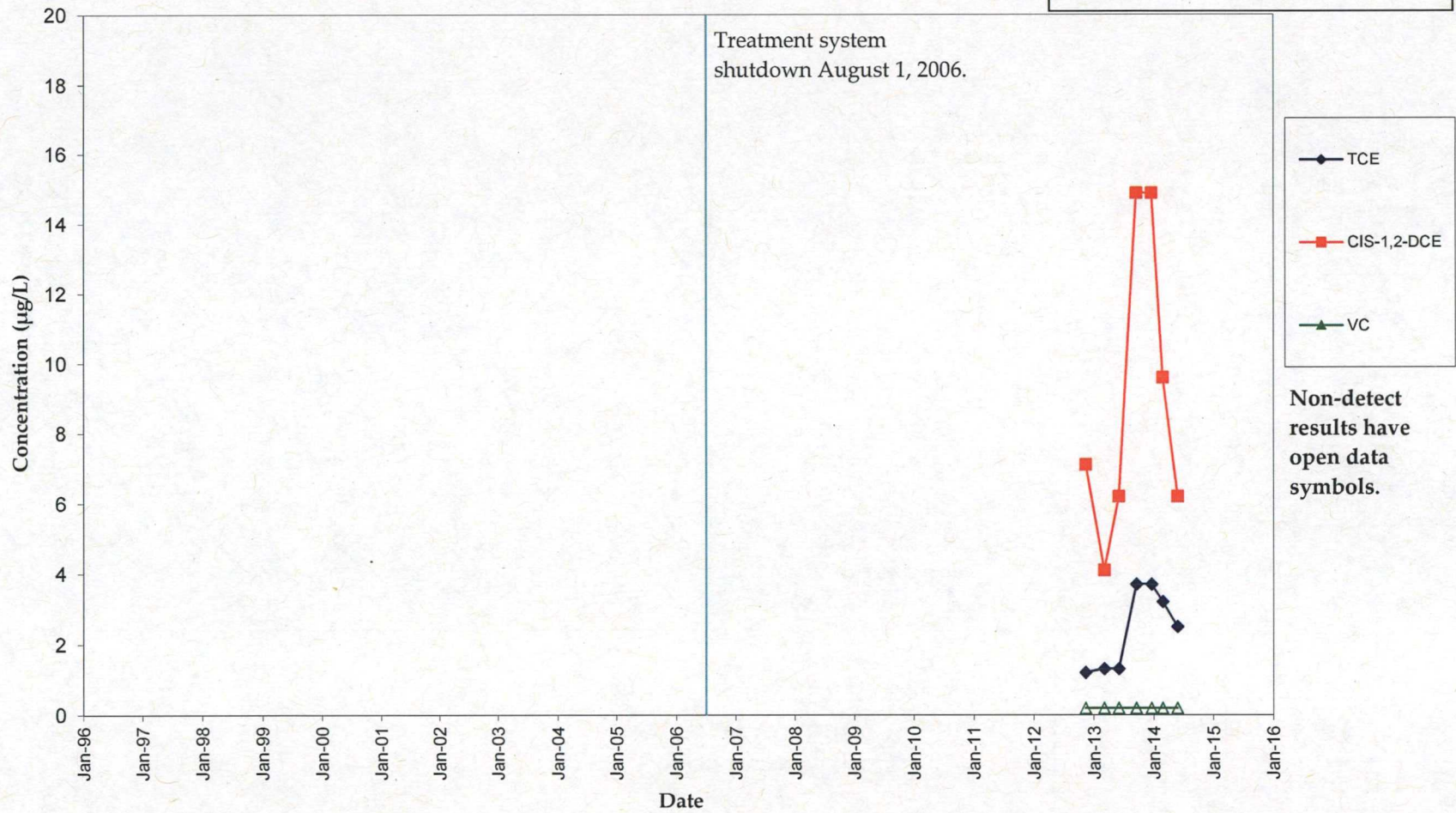
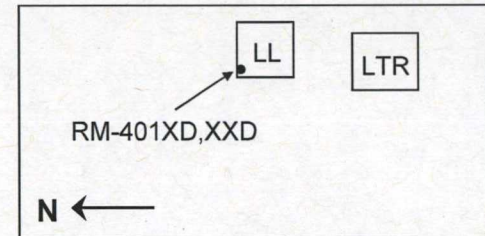
RM-308D VOC Concentration Trends Lemberger Landfill



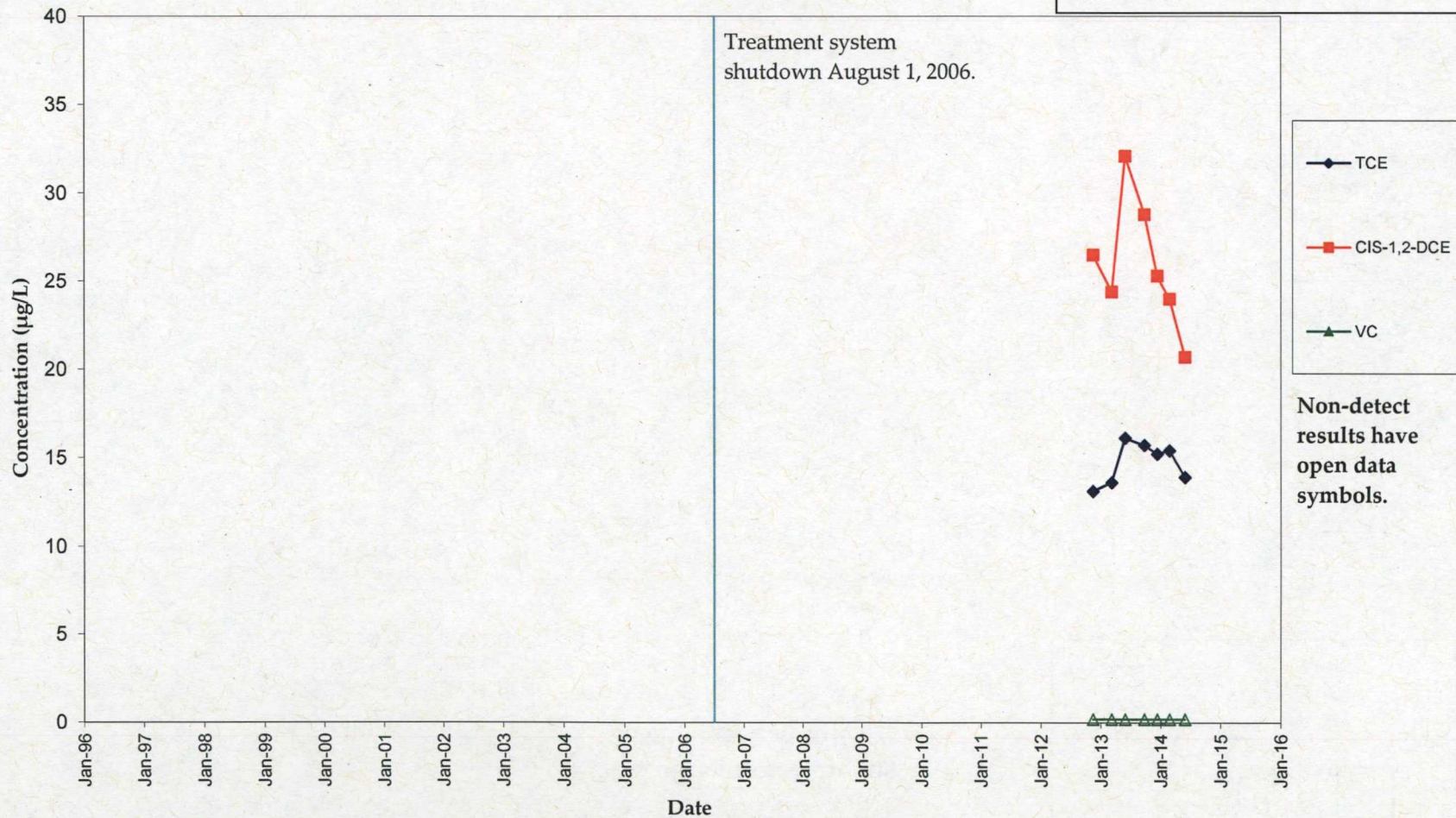
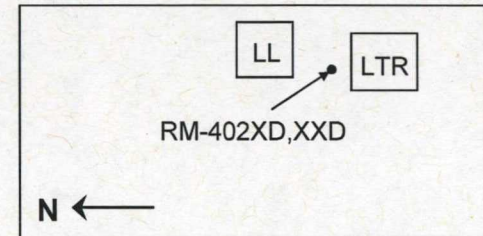
RM-401XD
VOC Concentration Trends
Lemberger Landfill



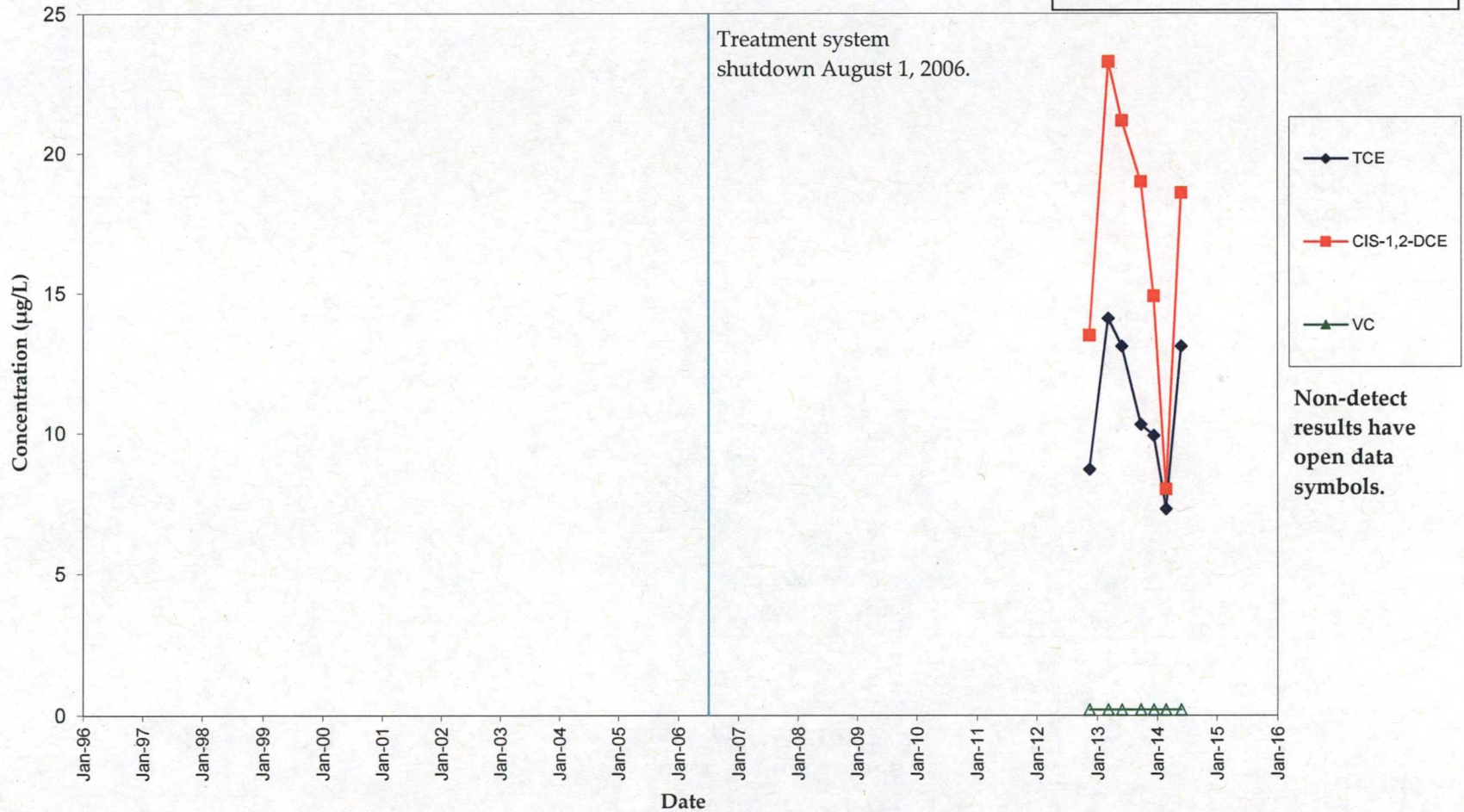
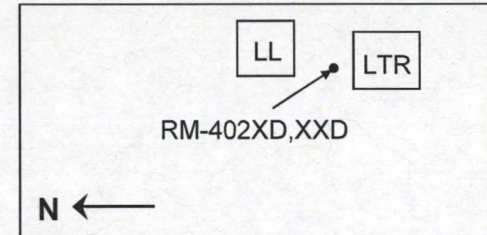
RM-401XXD
VOC Concentration Trends
Lemberger Landfill



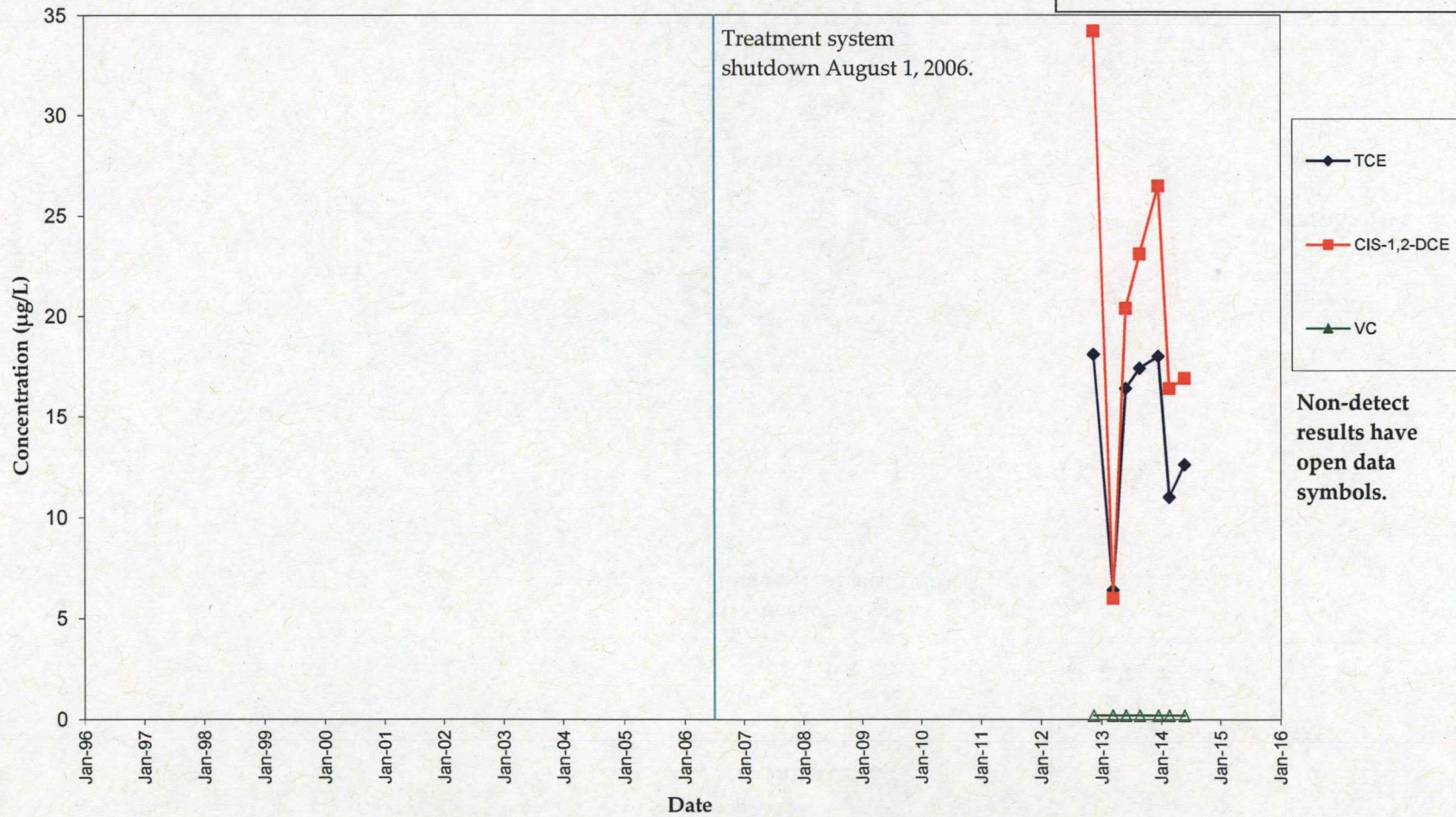
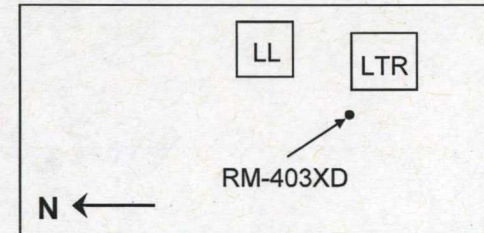
RM-402XD VOC Concentration Trends Lemberger Landfill



RM-402XXD VOC Concentration Trends Lemberger Landfill



RM-403XD VOC Concentration Trends Lemberger Landfill



Attachment 7 – 2014 Groundwater Data

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - SENTINEL WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-002D 9/23/2013 4085392007	RM-002D 1/12/2014 4091000003	RM-002D 3/19/2014 4093756002	RM-002D 6/24/2014 4098782008	RM-002D LL 9/23/2013 370160	RM-003D 9/19/2013 4085392001	RM-003D 12/19/2013 4090500003	RM-003D 3/20/2014 4093756005	RM-003D 6/23/2014 4098782002	RM-003D DUP 3/20/2014 4093756006
1,1,1-TRICHLOROETHANE	UG/L	7.2	8.8	8.1	5.3		56.3	38.3	24.3	42.3	24.0
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.38	< 0.38	< 0.38	< 0.25		< 0.38	< 0.38	< 0.38	< 0.25	< 0.38
1,1,2-TRICHLOROETHANE	UG/L	< 0.39	< 0.39	< 0.39	< 0.16		< 0.39	< 0.39	< 0.39	< 0.16	< 0.39
1,1-DICHLOROETHANE	UG/L	5.9	6.7	6.0	3.9		31.1	20.5	12.5	22.4	12.3
1,1-DICHLOROETHENE	UG/L	1.1	1.4	1.1	0.66 J		5.0	3.2	1.9	3.8	1.8
1,2-DICHLOROETHANE	UG/L	< 0.48	< 0.48	< 0.48	< 0.17		< 0.48	< 0.48	< 0.48	< 0.17	< 0.48
1,2-DICHLOROPROPANE	UG/L	< 0.50	< 0.50	< 0.50	< 0.23		< 0.50	< 0.50	< 0.50	< 0.23	< 0.50
2-BUTANONE	UG/L	< 2.7	< 2.7	< 2.7	< 3.0		< 2.7	< 2.7	< 2.7	< 3.0	< 2.7
2-HEXANONE	UG/L	< 2.5	< 2.5	< 2.5	< 1.1		< 2.5	< 2.5	< 2.5	< 1.1	< 2.5
4-METHYL-2-PENTANONE	UG/L	< 2.3	< 2.3	< 2.3	< 2.1		< 2.3	< 2.3	< 2.3	< 2.1	< 2.3
ACETONE	UG/L	< 2.6	< 2.6	< 2.6	< 3.0		< 2.6	< 2.6	< 2.6	< 3.0	< 2.6
BENZENE	UG/L	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
BROMODICHLOROMETHANE	UG/L	< 0.45	< 0.45	< 0.45	< 0.50		< 0.45	< 0.45	< 0.45	< 0.50	< 0.45
BROMOFORM	UG/L	< 0.33	< 0.33	< 0.33	< 0.50		< 0.33	< 0.33	< 0.33	< 0.50	< 0.33
BROMOMETHANE	UG/L	< 0.43	< 0.43	< 0.43	< 2.4		< 0.43	< 0.43	< 0.43	< 2.4	< 0.43
CARBON DISULFIDE	UG/L	< 0.71	< 0.71	< 0.71	< 0.61		< 0.71	< 0.71	< 0.71	< 0.61	< 0.71
CARBON TETRACHLORIDE	UG/L	< 0.37	< 0.37	< 0.37	< 0.50		< 0.37	< 0.37	< 0.37	< 0.50	< 0.37
CHLOROBENZENE	UG/L	< 0.36	< 0.36	< 0.36	< 0.50		< 0.36	< 0.36	< 0.36	< 0.50	< 0.36
CHLORODIBROMOMETHANE	UG/L	< 1.9	< 1.9	< 1.9	< 0.50		< 1.9	< 1.9	< 1.9	< 0.50	< 1.9
CHLOROETHANE	UG/L	< 0.44	< 0.44	< 0.44	< 0.37		< 0.44	< 0.44	< 0.44	< 0.37	< 0.44
CHLOROFORM	UG/L	< 0.69	< 0.69	< 0.69	< 2.5		< 0.69	< 0.69	< 0.69	< 2.5	< 0.69
CHLOROMETHANE	UG/L	< 0.39	< 0.39	< 0.39	< 0.50		< 0.39	< 0.39	< 0.39	< 0.50	< 0.39
CIS-1,2-DICHLOROETHENE	UG/L	2.6	2.8	2.4	1.5		10.2	5.8	3.1	8.4	3.2
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.29	< 0.29	< 0.29	< 0.50		< 0.29	< 0.29	< 0.29	< 0.50	< 0.29
ETHYLBENZENE	UG/L	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
METHYLENE CHLORIDE	UG/L	< 0.36	< 0.36	< 0.36	< 0.23		< 0.36	< 0.36	< 0.36	< 0.23	< 0.36
STYRENE	UG/L	< 0.35	< 0.35	< 0.35	< 0.50		< 0.35	< 0.35	< 0.35	< 0.50	< 0.35
TETRACHLOROETHENE	UG/L	< 0.47	< 0.47	< 0.47	< 0.50		< 0.47	< 0.47	< 0.47	< 0.50	< 0.47
TOLUENE	UG/L	< 0.44	< 0.44	< 0.44	< 0.50		< 0.44	< 0.44	< 0.44	< 0.50	< 0.44
TRANS-1,2-DICHLOROETHENE	UG/L	< 0.37	< 0.37	< 0.37	< 0.26		< 0.37	< 0.37	< 0.37	< 0.26	< 0.37
TRANS-1,3-DICHLOROPROPENE	UG/L	< 0.30	< 0.30	< 0.30	< 0.23		< 0.30	< 0.30	< 0.30	< 0.23	< 0.30
TRICHLOROETHENE	UG/L	2.3	2.6	2.6	1.7		7.2	4.4	3.1	4.8	3.2
VINYL CHLORIDE	UG/L	< 0.18	< 0.18	< 0.18	< 0.18	< 0.014	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
XYLENE, TOTAL	UG/L	< 1.3	< 1.3	< 1.3	< 1.5		< 1.3	< 1.3	< 1.3	< 1.5	< 1.3

NOTES:

Laboratory data qualifiers are included in the laboratory reports in Appendix F. See specific laboratory report for Sample Delivery Group (SDG) definition. Data validation qualifiers are listed below.

j = The reported result is considered estimated.

u = Analyte is present at less than 10 times the concentration in the associated trip, field, storage, and/or laboratory method blank (B) for common laboratory contaminants, or at less than 5 times the blank concentration of other compounds and is therefore qualified as nondetectable (u) according to USEPA data validation procedures.

Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - SENTINEL WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-003D LL 9/19/2013 370154	RM-003XXD 9/19/2013 4085392002	RM-003XXD 12/19/2013 4090500004	RM-003XXD 3/20/2014 4093756004	RM-003XXD 6/23/2014 4098782003	RM-003XXD DUP 12/19/2013 4090500005	RM-003XXD DUP 6/23/2014 4098782006	RM-003XXD LL 9/19/2013 370155	RM-210D 9/23/2013 4085392006
1,1,1-TRICHLOROETHANE	UG/L		19.6	21.3	28.1	21.7	21.3	20.8		11.9
1,1,2,2-TETRACHLOROETHANE	UG/L		< 0.38	< 0.38	< 0.38	< 0.25	< 0.38	< 0.25		< 0.38
1,1,2-TRICHLOROETHANE	UG/L		< 0.39	< 0.39	< 0.39	< 0.16	< 0.39	< 0.16		< 0.39
1,1-DICHLOROETHANE	UG/L		10.9	11.2	16.9	11.5	11.6	12.0		6.9
1,1-DICHLOROETHENE	UG/L		1.4	1.4	1.8	1.4	1.4	1.6		1.6
1,2-DICHLOROETHANE	UG/L		< 0.48	< 0.48	< 0.48	< 0.17	< 0.48	< 0.17		< 0.48
1,2-DICHLOROPROPANE	UG/L		< 0.50	< 0.50	< 0.50	< 0.23	< 0.50	< 0.23		< 0.50
2-BUTANONE	UG/L		< 2.7	< 2.7	< 2.7	< 3.0	< 2.7	< 3.0		< 2.7
2-HEXANONE	UG/L		< 2.5	< 2.5	< 2.5	< 1.1	< 2.5	< 1.1		< 2.5
4-METHYL-2-PENTANONE	UG/L		< 2.3	< 2.3	< 2.3	< 2.1	< 2.3	< 2.1		< 2.3
ACETONE	UG/L		< 2.6	< 2.6	< 2.6	< 3.0	< 2.6	< 3.0		< 2.6
BENZENE	UG/L		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50
BROMODICHLOROMETHANE	UG/L		< 0.45	< 0.45	< 0.45	< 0.50	< 0.45	< 0.50		< 0.45
BROMOFORM	UG/L		< 0.33	< 0.33	< 0.33	< 0.50	< 0.33	< 0.50		< 0.33
BROMOMETHANE	UG/L		< 0.43	< 0.43	< 0.43	< 2.4	< 0.43	< 2.4		< 0.43
CARBON DISULFIDE	UG/L		< 0.71	< 0.71	< 0.71	< 0.61	< 0.71	< 0.61		< 0.71
CARBON TETRACHLORIDE	UG/L		< 0.37	< 0.37	< 0.37	< 0.50	< 0.37	< 0.50		< 0.37
CHLOROBENZENE	UG/L		< 0.36	< 0.36	< 0.36	< 0.50	< 0.36	< 0.50		< 0.36
CHLORODIBROMOMETHANE	UG/L		< 1.9	< 1.9	< 1.9	< 0.50	< 1.9	< 0.50		< 1.9
CHLOROETHANE	UG/L		< 0.44	< 0.44	< 0.44	< 0.37	< 0.44	< 0.37		< 0.44
CHLOROFORM	UG/L		< 0.69	< 0.69	< 0.69	< 2.5	< 0.69	< 2.5		< 0.69
CHLOROMETHANE	UG/L		< 0.39	< 0.39	< 0.39	< 0.50	< 0.39	< 0.50		< 0.39
CIS-1,2-DICHLOROETHENE	UG/L		3.6	3.6	4.5	5.2	3.6	4.8		3.6
CIS-1,3-DICHLOROPROPENE	UG/L		< 0.29	< 0.29	< 0.29	< 0.50	< 0.29	< 0.50		< 0.29
ETHYLBENZENE	UG/L		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50
METHYLENE CHLORIDE	UG/L		< 0.36	< 0.36	< 0.36	< 0.23	< 0.36	< 0.23		< 0.36
STYRENE	UG/L		< 0.35	< 0.35	< 0.35	< 0.50	< 0.35	< 0.50		< 0.35
TETRACHLOROETHENE	UG/L		< 0.47	< 0.47	< 0.47	< 0.50	< 0.47	< 0.50		< 0.47
TOLUENE	UG/L		< 0.44	< 0.44	< 0.44	< 0.50	< 0.44	< 0.50		< 0.44
TRANS-1,2-DICHLOROETHENE	UG/L		< 0.37	< 0.37	< 0.37	< 0.26	< 0.37	< 0.26		< 0.37
TRANS-1,3-DICHLOROPROPENE	UG/L		< 0.30	< 0.30	< 0.30	< 0.23	< 0.30	< 0.23		< 0.30
TRICHLOROETHENE	UG/L		4.9	4.9	7.2	4.3	4.9	4.5		2.4
VINYL CHLORIDE	UG/L	< 0.014	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.014	< 0.18
XYLENE, TOTAL	UG/L		< 1.3	< 1.3	< 1.3	< 1.5	< 1.3	< 1.5		< 1.3

NOTES:

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - SENTINEL WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-210D 1/12/2014 4091000002	RM-210D 3/19/2014 4093756001	RM-210D 6/24/2014 4098782007	RM-210D LL 9/23/2013 370159	RM-211D 9/19/2013 4085392003	RM-211D 12/18/2013 4090500002	RM-211D 3/21/2014 4093767002	RM-211D 6/23/2014 4098782004	RM-211D LL 9/19/2013 370156	RM-212D 9/23/2013 4085392008
1,1,1-TRICHLOROETHANE	UG/L	14.9	13.6	14.0		3.4	2.1	1.1	8.3		< 0.44
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.38	< 0.38	< 0.25		< 0.38	< 0.38	< 0.38	< 0.25		< 0.38
1,1,2-TRICHLOROETHANE	UG/L	< 0.39	< 0.39	< 0.16		< 0.39	< 0.39	< 0.39	< 0.16		< 0.39
1,1-DICHLOROETHANE	UG/L	7.8	7.1	7.6		1.6	0.89 J	0.40 J	4.5		< 0.28
1,1-DICHLOROETHENE	UG/L	1.9	1.7	1.6		< 0.43	< 0.43	< 0.43	0.65 J		< 0.43
1,2-DICHLOROETHANE	UG/L	< 0.48	< 0.48	< 0.17		< 0.48	< 0.48	< 0.48	< 0.17		< 0.48
1,2-DICHLOROPROPANE	UG/L	< 0.50	< 0.50	< 0.23		< 0.50	< 0.50	< 0.50	< 0.23		< 0.50
2-BUTANONE	UG/L	< 2.7	< 2.7	< 3.0		< 2.7	< 2.7	< 2.7	< 3.0		< 2.7
2-HEXANONE	UG/L	< 2.5	< 2.5	< 1.1		< 2.5	< 2.5	< 2.5	< 1.1		< 2.5
4-METHYL-2-PENTANONE	UG/L	< 2.3	< 2.3	< 2.1		< 2.3	< 2.3	< 2.3	< 2.1		< 2.3
ACETONE	UG/L	3.3 Ju	< 2.6	< 3.0		< 2.6	< 2.6	< 2.6	< 3.0		< 2.6
BENZENE	UG/L	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50		< 0.50
BROMODICHLOROMETHANE	UG/L	< 0.45	< 0.45	< 0.50		< 0.45	< 0.45	< 0.45	< 0.50		< 0.45
BROMOFORM	UG/L	< 0.33	< 0.33	< 0.50		< 0.33	< 0.33	< 0.33	< 0.50		< 0.33
BROMOMETHANE	UG/L	< 0.43	< 0.43	< 2.4		< 0.43	< 0.43	< 0.43	< 2.4		< 0.43
CARBON DISULFIDE	UG/L	< 0.71	< 0.71	< 0.61		< 0.71	< 0.71	< 0.71	< 0.61		< 0.71
CARBON TETRACHLORIDE	UG/L	< 0.37	< 0.37	< 0.50		< 0.37	< 0.37	< 0.37	< 0.50		< 0.37
CHLOROBENZENE	UG/L	< 0.36	< 0.36	< 0.50		< 0.36	< 0.36	< 0.36	< 0.50		< 0.36
CHLORODIBROMOMETHANE	UG/L	< 1.9	< 1.9	< 0.50		< 1.9	< 1.9	< 1.9	< 0.50		< 1.9
CHLOROETHANE	UG/L	< 0.44	< 0.44	< 0.37		< 0.44	< 0.44	< 0.44	< 0.37		< 0.44
CHLOROFORM	UG/L	< 0.69	< 0.69	< 2.5		< 0.69	< 0.69	< 0.69	< 2.5		< 0.69
CHLOROMETHANE	UG/L	< 0.39	< 0.39	< 0.50		< 0.39	< 0.39	< 0.39	< 0.50		< 0.39
CIS-1,2-DICHLOROETHENE	UG/L	4.0	3.9	4.0		< 0.42	< 0.42	< 0.42	< 0.26		< 0.42
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.29	< 0.29	< 0.50		< 0.29	< 0.29	< 0.29	< 0.50		< 0.29
ETHYLBENZENE	UG/L	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50		< 0.50
METHYLENE CHLORIDE	UG/L	< 0.36	< 0.36	< 0.23		< 0.36	< 0.36	< 0.36	< 0.23		< 0.36
STYRENE	UG/L	< 0.35	< 0.35	< 0.50		< 0.35	< 0.35	< 0.35	< 0.50		< 0.35
TETRACHLOROETHENE	UG/L	< 0.47	< 0.47	< 0.50		< 0.47	< 0.47	< 0.47	< 0.50		< 0.47
TOLUENE	UG/L	< 0.44	< 0.44	< 0.50		< 0.44	< 0.44	< 0.44	< 0.50		< 0.44
TRANS-1,2-DICHLOROETHENE	UG/L	< 0.37	< 0.37	< 0.26		< 0.37	< 0.37	< 0.37	< 0.26		< 0.37
TRANS-1,3-DICHLOROPROPENE	UG/L	< 0.30	< 0.30	< 0.23		< 0.30	< 0.30	< 0.30	< 0.23		< 0.30
TRICHLOROETHENE	UG/L	2.6	2.7	2.2		0.48 J	< 0.36	< 0.36	0.74 J		< 0.36
VINYL CHLORIDE	UG/L	< 0.18	< 0.18	< 0.18	< 0.014	< 0.18	< 0.18	< 0.18	< 0.18	< 0.014	< 0.18
XYLENE, TOTAL	UG/L	< 1.3	< 1.3	< 1.5		< 1.3	< 1.3	< 1.3	< 1.5		< 1.3

NOTES:

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LEMBERGER LANDFILL
-GROUNDWATER ANALYTICAL DATA - SENTINEL WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-212D 12/18/2013 4090500001	RM-212D 3/20/2014 4093756003	RM-212D 6/23/2014 4098782001	RM-212D LL 9/23/2013 370161	RM-403XD 9/20/2013 4085392004	RM-403XD 1/12/2014 4091000001	RM-403XD 3/21/2014 4093767001	RM-403XD 6/23/2014 4098782005	RM-403XD DUP 9/20/2013 4085392005
1,1,1-TRICHLOROETHANE	UG/L	< 0.44	< 0.44	< 0.50		146	184	129	151	147
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.38	< 0.38	< 0.25		< 0.38	< 0.38	< 0.38	< 0.25	< 0.38
1,1,2-TRICHLOROETHANE	UG/L	< 0.39	< 0.39	< 0.16		< 0.39	< 0.39	< 0.39	< 0.16	< 0.39
1,1-DICHLOROETHANE	UG/L	< 0.28	< 0.28	< 0.24		79.0	94.9	69.5	74.2	79.1
1,1-DICHLOROETHENE	UG/L	< 0.43	< 0.43	< 0.41		11.2	13.8	10.6	11.7	11.2
1,2-DICHLOROETHANE	UG/L	< 0.48	< 0.48	< 0.17		< 0.48	< 0.48	< 0.48	< 0.17	< 0.48
1,2-DICHLOROPROPANE	UG/L	< 0.50	< 0.50	< 0.23		< 0.50	< 0.50	< 0.50	< 0.23	< 0.50
2-BUTANONE	UG/L	< 2.7	< 2.7	< 3.0		< 2.7	< 2.7	< 2.7	< 3.0	< 2.7
2-HEXANONE	UG/L	< 2.5	< 2.5	< 1.1		< 2.5	< 2.5	< 2.5	< 1.1	< 2.5
4-METHYL-2-PENTANONE	UG/L	< 2.3	< 2.3	< 2.1		< 2.3	< 2.3	< 2.3	< 2.1	< 2.3
ACETONE	UG/L	< 2.6	< 2.6	< 3.0		< 2.6	9.2 Ju	< 2.6	< 3.0	< 2.6
BENZENE	UG/L	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
BROMODICHLOROMETHANE	UG/L	< 0.45	< 0.45	< 0.50		< 0.45	< 0.45	< 0.45	< 0.50	< 0.45
BROMOFORM	UG/L	< 0.33	< 0.33	< 0.50		< 0.33	< 0.33	< 0.33	< 0.50	< 0.33
BROMOMETHANE	UG/L	< 0.43	< 0.43	< 2.4		< 0.43	< 0.43	< 0.43	< 2.4	< 0.43
CARBON DISULFIDE	UG/L	< 0.71	< 0.71	< 0.61		< 0.71	< 0.71	< 0.71	< 0.61	< 0.71
CARBON TETRACHLORIDE	UG/L	< 0.37	< 0.37	< 0.50		< 0.37	< 0.37	< 0.37	< 0.50	< 0.37
CHLOROBENZENE	UG/L	< 0.36	< 0.36	< 0.50		< 0.36	< 0.36	< 0.36	< 0.50	< 0.36
CHLORODIBROMOMETHANE	UG/L	< 1.9	< 1.9	< 0.50		< 1.9	< 1.9	< 1.9	< 0.50	< 1.9
CHLOROETHANE	UG/L	< 0.44	< 0.44	< 0.37		< 0.44	< 0.44	< 0.44	< 0.37	< 0.44
CHLOROFORM	UG/L	< 0.69	< 0.69	< 2.5		< 0.69	< 0.69	< 0.69	< 2.5	< 0.69
CHLOROMETHANE	UG/L	< 0.39	< 0.39	< 0.50		< 0.39	< 0.39	< 0.39	< 0.50	< 0.39
CIS-1,2-DICHLOROETHENE	UG/L	< 0.42	< 0.42	< 0.26		23.1	26.5	16.4	16.9	22.8
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.29	< 0.29	< 0.50		< 0.29	< 0.29	< 0.29	< 0.50	< 0.29
ETHYLBENZENE	UG/L	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
METHYLENE CHLORIDE	UG/L	< 0.36	< 0.36	< 0.23		< 0.36	< 0.36	< 0.36	< 0.23	< 0.36
STYRENE	UG/L	< 0.35	< 0.35	< 0.50		< 0.35	< 0.35	< 0.35	< 0.50	< 0.35
TETRACHLOROETHENE	UG/L	< 0.47	< 0.47	< 0.50		1.4	1.5	0.98 J	0.88 J	1.4
TOLUENE	UG/L	< 0.44	< 0.44	< 0.50		< 0.44	< 0.44	< 0.44	< 0.50	< 0.44
TRANS-1,2-DICHLOROETHENE	UG/L	< 0.37	< 0.37	< 0.26		< 0.37	< 0.37	< 0.37	< 0.26	< 0.37
TRANS-1,3-DICHLOROPROPENE	UG/L	< 0.30	< 0.30	< 0.23		< 0.30	< 0.30	< 0.30	< 0.23	< 0.30
TRICHLOROETHENE	UG/L	< 0.36	< 0.36	< 0.33		17.4	18.0	11.0	12.6	17.8
VINYL CHLORIDE	UG/L	< 0.18	< 0.18	< 0.18	< 0.014	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
XYLENE, TOTAL	UG/L	< 1.3	< 1.3	< 1.5		< 1.3	< 1.3	< 1.3	< 1.5	< 1.3

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - SENTINEL WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-403XD LL	RM-403XD LL DUP
		9/20/2013 370157	9/20/2013 370158
1,1,1-TRICHLOROETHANE	UG/L		
1,1,2,2-TETRACHLOROETHANE	UG/L		
1,1,2-TRICHLOROETHANE	UG/L		
1,1-DICHLOROETHANE	UG/L		
1,1-DICHLOROETHENE	UG/L		
1,2-DICHLOROETHANE	UG/L		
1,2-DICHLOROPROPANE	UG/L		
2-BUTANONE	UG/L		
2-HEXANONE	UG/L		
4-METHYL-2-PENTANONE	UG/L		
ACETONE	UG/L		
BENZENE	UG/L		
BROMODICHLOROMETHANE	UG/L		
BROMOFORM	UG/L		
BROMOMETHANE	UG/L		
CARBON DISULFIDE	UG/L		
CARBON TETRACHLORIDE	UG/L		
CHLORO BENZENE	UG/L		
CHLORODIBROMOMETHANE	UG/L		
CHLOROETHANE	UG/L		
CHLOROFORM	UG/L		
CHLOROMETHANE	UG/L		
CIS-1,2-DICHLOROETHENE	UG/L		
CIS-1,3-DICHLOROPROPENE	UG/L		
ETHYLBENZENE	UG/L		
METHYLENE CHLORIDE	UG/L		
STYRENE	UG/L		
TETRACHLOROETHENE	UG/L		
TOLUENE	UG/L		
TRANS-1,2-DICHLOROETHENE	UG/L		
TRANS-1,3-DICHLOROPROPENE	UG/L		
TRICHLOROETHENE	UG/L		
VINYL CHLORIDE	UG/L	< 0.014	< 0.014
XYLENE, TOTAL	UG/L		

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - SENTINEL WELLS
INORGANIC PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-002D 9/23/2013 4085392007	RM-002D 1/12/2014 4091000003	RM-002D 3/19/2014 4093756002	RM-002D 6/24/2014 4098782008	RM-003D 9/19/2013 4085392001	RM-003D 12/19/2013 4090500003	RM-003D 3/20/2014 4093756005	RM-003D 6/23/2014 4098782002	RM-003D DUP 3/20/2014 4093756006	RM-003XXD 9/19/2013 4085392002
ALKALINITY AS CaCO ₃ , TOTAL	MG/L					376	327 Mj	345	373	342	353 Mj
CARBON DIOXIDE, FIELD	MG/L					20	20	20	20		25
CHLORIDE	MG/L					15.2 u	12.4 u	11.4	15.6	11.4	24.0 u
COLOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE		NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	598	598	598	581	757	686	673	699		759
DEHALOBACTER	CELLS/BD										
DEHALOCOCCOIDES	CELLS/BD										
DEPTH TO WATER	FEET	23.47	23.90	23.16	22.40	16.97	17.61	18.22	14.20		15.16
DISSOLVED OXYGEN, FIELD	MG/L	0.32	0.68	0.59	0.23	2.35	2.40	2.00	2.22		0.48
EH, FIELD	MV	153	105	149	24	162	168	109	88		204
ETHANE	UG/L					< 0.36	< 0.36	< 0.58	< 0.58	< 0.58	< 0.36
ETHENE	UG/L					< 0.30	< 0.30	< 0.52	< 0.52	< 0.52	< 0.30
IRON, FERROUS, FIELD	MG/L					0	0	0	0		0
IRON, TOTAL	UG/L					< 36.2	< 36.2	39.1 J	13.6 JBu	< 36.2	< 36.2
MANGANESE, FIELD	MG/L					0	0	0	0		0
MANGANESE, TOTAL	UG/L					< 0.32	0.59 Ju	0.33 J	0.39 J	< 0.32	2.5 u
METHANE	UG/L					< 0.64	< 0.64	< 1.4	< 1.4	< 1.4	< 0.64
NITROGEN, NITRATE + NITRITE	MG/L					4.9	3.6	2.4	4.3	2.8	6.8 Mj
ODOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE		NONE
PH, FIELD	SU	7.56	8.20	8.02	7.09	7.20	7.12	7.55	7.02		7.24
SULFATE, TOTAL	MG/L					41.9 u	33.7	31.9	34.6 Mj	31.8	32.1 u
SULFIDE, FIELD	MG/L					0	0	0	0		0
TEMPERATURE	DEG C	9.8	5.2	3.4	9.6	9.9	6.8	8.6	10.1		9.2
TOTAL INORGANIC CARBON	MG/L					102	106	99.0	97.4	98.5	98.7
TOTAL ORGANIC CARBON AS NPOC	MG/L					1.2 u	1.0	1.0	0.97	1.1	1.3 u
TOTAL ORGANIC CARBON, DIS	MG/L					1.3 1qu	1.2 1q	1.1 1qu	1.2 2qu	1.1 u	1.1 u
TURBIDITY, FIELD NTU	NTU	6	6	7	6	0	0	0	0		6
WATER ELEVATION	FEET	792.24	791.81	792.55	793.31	803.16	802.52	801.91	805.93		806.37

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - SENTINEL WELLS
INORGANIC PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-003XXD 12/19/2013 4090500004	RM-003XXD 3/20/2014 4093756004	RM-003XXD 6/23/2014 4098782003	RM-003XXD DUP 12/19/2013 4090500005	RM-003XXD DUP 6/23/2014 4098782006	RM-210D 9/23/2013 4085392006	RM-210D 1/12/2014 4091000002	RM-210D 3/19/2014 4093756001	RM-210D 6/24/2014 4098782007
ALKALINITY AS CaCO ₃ , TOTAL	MG/L	373	377	340	354	342				
CARBON DIOXIDE, FIELD	MG/L	30	30	27						
CHLORIDE	MG/L	20.9	26.7	28.5	20.9	28.4				
COLOR, FIELD		NONE	NONE	NONE			NONE	NONE	NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	740	815	721			704	720	712	701
DEHALOBACTER	CELLS/BD									
DEHALOCOCCOIDES	CELLS/BD									
DEPTH TO WATER	FEET	15.73	16.20	12.45			31.25	32.27	32.44	29.33
DISSOLVED OXYGEN, FIELD	MG/L	0.65	1.12	1.26			0.92	2.81	1.00	0.40
EH, FIELD	MV	206	151	108			175	227	127	108
ETHANE	UG/L	< 0.36	< 0.58	< 0.58	< 0.36	< 0.58				
ETHENE	UG/L	< 0.30	< 0.52	< 0.52	< 0.30	< 0.52				
IRON, FERROUS, FIELD	MG/L	0	0	0						
IRON, TOTAL	UG/L	< 36.2	< 36.2	< 4.4	< 36.2	< 4.4				
MANGANESE, FIELD	MG/L	0	0	0						
MANGANESE, TOTAL	UG/L	4.0	0.43 J	0.93 J	3.8	0.44 J				
METHANE	UG/L	< 0.64	< 1.4	< 1.4	< 0.64	< 1.4				
NITROGEN, NITRATE + NITRITE	MG/L	5.7	7.1	7.0	5.3	6.9				
ODOR, FIELD		NONE	NONE	NONE			NONE	NONE	NONE	NONE
PH, FIELD	SU	7.38	7.38	7.33			7.31	7.68	7.67	7.05
SULFATE, TOTAL	MG/L	31.4	37.8	29.8	31.6	31.0				
SULFIDE, FIELD	MG/L	0	0	0						
TEMPERATURE	DEG C	4.6	6.8	9.9			9.9	4.9	4.8	9.9
TOTAL INORGANIC CARBON	MG/L	106	111	68.3	107	98.2				
TOTAL ORGANIC CARBON AS NPOC	MG/L	1.0	1.1	0.82	0.96	0.85				
TOTAL ORGANIC CARBON, DIS	MG/L	1.2 1q	1.6 1qu	1.1 2qu	1.4 1q	1.6 1qu				
TURBIDITY, FIELD NTU	NTU	5	5	3			5	8	7	6
WATER ELEVATION	FEET	805.8	805.33	809.08			796.61	795.59	795.42	798.53

NOTES:

Laboratory data qualifiers are included in the laboratory reports in Appendix F. See specific laboratory report for Sample Delivery Group (SDG) definition. Data validation qualifiers are listed below.

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Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - SENTINEL WELLS
INORGANIC PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-211D 9/19/2013 4085392003	RM-211D 12/18/2013 4090500002	RM-211D 3/21/2014 4093767002	RM-211D 6/23/2014 4098782004	RM-212D 9/23/2013 4085392008	RM-212D 12/18/2013 4090500001	RM-212D 3/20/2014 4093756003	RM-212D 6/23/2014 4098782001	RM-403XD 9/3/2013 001KI-007	RM-403XD 9/20/2013 4085392004
ALKALINITY AS CaCO ₃ , TOTAL	MG/L										408
CARBON DIOXIDE, FIELD	MG/L	20		20	24				22		25
CHLORIDE	MG/L										19.8 u
COLOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE		NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	668	663	666	659	606	735	771	762		914
DEHALOBACTER	CELLS/BD									38.1 J	
DEHALOCOCCOIDES	CELLS/BD									< 25	
DEPTH TO WATER	FEET	16.49	16.37	17.53	13.33	9.81	10.82	11.01	6.21		38.21
DISSOLVED OXYGEN, FIELD	MG/L	1.24	1.03	0.54	1.64	0.15	0.71	0.12	0.10		3.72
EH, FIELD	MV	217	116	152	75	118	19	51	31		173
ETHANE	UG/L										< 0.36
ETHENE	UG/L										< 0.30
IRON, FERROUS, FIELD	MG/L	0		0	0				0		0
IRON, TOTAL	UG/L										< 36.2
MANGANESE, FIELD	MG/L	0		0	0				0		0
MANGANESE, TOTAL	UG/L										23.0
METHANE	UG/L										< 0.64
NITROGEN, NITRATE + NITRITE	MG/L										6.0
ODOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE		NONE
PH, FIELD	SU	7.30	7.41	7.33	7.34	7.58	7.52	7.76	7.44		7.09
SULFATE, TOTAL	MG/L										80.2
SULFIDE, FIELD	MG/L	0		0	0				0		0
TEMPERATURE	DEG C	9.8	8.1	9.2	9.6	10.5	2.5	6.7	10.9		9.3
TOTAL INORGANIC CARBON	MG/L										132
TOTAL ORGANIC CARBON AS NPOC	MG/L										1.6 u
TOTAL ORGANIC CARBON, DIS	MG/L										1.7 1qu
TURBIDITY, FIELD NTU	NTU	0	0	0	0	6	6	7	7		8
WATER ELEVATION	FEET	803.86	803.98	802.82	807.02	805.85	804.84	804.65	809.45		806.29

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**LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - SENTINEL WELLS
INORGANIC PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014**

PARAMETER	UNITS	RM-403XD 1/12/2014 4091000001	RM-403XD 3/21/2014 4093767001	RM-403XD 6/23/2014 4098782005	RM-403XD DUP 9/20/2013 4085392005
ALKALINITY AS CaCO ₃ , TOTAL	MG/L	462	392	413	413
CARBON DIOXIDE, FIELD	MG/L	20	28	20	
CHLORIDE	MG/L	16.7	9.6	7.5	19.7 u
COLOR, FIELD		NONE	NONE	NONE	
CONDUCTANCE, SPECIFIC	UMHOS/CM	885	782	749	
DEHALOBACTER	CELLS/BD				
DEHALOCOCCOIDES	CELLS/BD				
DEPTH TO WATER	FEET	38.92	39.00	34.37	
DISSOLVED OXYGEN, FIELD	MG/L	4.38	3.00	2.23	
EH, FIELD	MV	124	91	92	
ETHANE	UG/L	< 0.36	< 0.58	< 0.58	< 0.36
ETHENE	UG/L	< 0.30	< 0.52	< 0.52	< 0.30
IRON, FERROUS, FIELD	MG/L	0	0	0	
IRON, TOTAL	UG/L	< 36.2	< 36.2	< 4.4	< 36.2
MANGANESE, FIELD	MG/L	0	0	0	
MANGANESE, TOTAL	UG/L	35.2	39.4	28.9	23.3
METHANE	UG/L	< 0.64	< 1.4	< 1.4	< 0.64
NITROGEN, NITRATE + NITRITE	MG/L	4.8	2.3 M0j	1.9	5.9
ODOR, FIELD		NONE	NONE	NONE	
PH, FIELD	SU	7.07	8.02	7.05	
SULFATE, TOTAL	MG/L	73.8	56.5	60.4	80.5
SULFIDE, FIELD	MG/L	0	0	0	
TEMPERATURE	DEG C	4.7	9.2	9.6	
TOTAL INORGANIC CARBON	MG/L	121	112	108	123
TOTAL ORGANIC CARBON AS NPOC	MG/L	1.6	1.5	1.4	1.7 u
TOTAL ORGANIC CARBON, DIS	MG/L	1.7 2qu	1.6 2qu	2.5 1qu	1.8 1qu
TURBIDITY, FIELD NTU	NTU	5	5	4	
WATER ELEVATION	FEET	805.58	805.5	810.13	

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	EW-07D 10/23/2013 4087377007	EW-07D 1/19/2014 4091236001	EW-07D 3/26/2014 4093883007	EW-07D 6/27/2014 4098976006	EW-07D DUP 1/19/2014 4091236003	EW-07D LL 10/23/2013 388549	OW-101A 10/28/2013 4087679001	OW-101A 1/13/2014 4090999001	OW-101A 4/1/2014 4094096002	OW-101A 6/28/2014 4098953001
1,1,1-TRICHLOROETHANE	UG/L	36.4	32.8	39.5	39.4	33.6		257	306	251	281
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.38	<0.38	<0.25	<0.25	<0.38		<1.5	<1.5	<1.0	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.39	<0.39	<0.16	<0.16	<0.39		<1.6	<1.6	<0.62	<0.62
1,1-DICHLOROETHANE	UG/L	17.7	18.3	18.5	17.2	19.1		172	176	137	174
1,1-DICHLOROETHENE	UG/L	6.4	6.8	6.9	6.8	6.9		16.5	16.6	15.5	20.2
1,2-DICHLOROETHANE	UG/L	<0.48	<0.48	<0.17	<0.17	<0.48		<1.9	<1.9	<0.67	<0.67
1,2-DICHLOROPROPANE	UG/L	<0.50	<0.50	<0.23	<0.23	<0.50		<2.0	<2.0	<0.93	<0.93
2-BUTANONE	UG/L	<2.7	<2.7	<3.0	<3.0	<2.7		<10.8	<10.8	<11.9	<11.9
2-HEXANONE	UG/L	<2.5	<2.5	<1.1	<1.1	<2.5		<10.2	<10.2	<4.4	<4.4
4-METHYL-2-PENTANONE	UG/L	<2.3	<2.3	<2.1	<2.1	<2.3		<9.4	<9.4	<8.6	<8.6
ACETONE	UG/L	<2.6	<2.6	<3.0	<3.0	<2.6		<10.4	<10.4	<11.8	<11.8
BENZENE	UG/L	<0.50	<0.50	<0.50	<0.50	<0.50		<2.0	<2.0	<2.0	<2.0
BROMODICHLOROMETHANE	UG/L	<0.45	<0.45	<0.50	<0.50	<0.45		<1.8	<1.8	<2.0	<2.0
BROMOFORM	UG/L	<0.33	<0.33	<0.50	<0.50	<0.33		<1.3	<1.3	<2.0	<2.0
BROMOMETHANE	UG/L	<0.43	<0.43	<2.4	<2.4	<0.43		<1.7	<1.7	<9.7	<9.7
CARBON DISULFIDE	UG/L	<0.71	<0.71	<0.51	<0.61	<0.71		<2.8	<2.8	<2.1	<2.5
CARBON TETRACHLORIDE	UG/L	<0.37	<0.37	<0.50	<0.50	<0.37		<1.5	<1.5	<2.0	<2.0
CHLOROBENZENE	UG/L	<0.36	<0.36	<0.50	<0.50	<0.36		<1.4	<1.4	<2.0	<2.0
CHLORODIBROMOMETHANE	UG/L	<1.9	<1.9	<0.32	<0.50	<1.9		<7.6	<7.6	<1.3	<2.0
CHLOROETHANE	UG/L	<0.44	<0.44	<0.37	0.44 J	<0.44		<1.8	<1.8	<1.5	<1.5
CHLOROFORM	UG/L	<0.69	<0.69	<2.5	<2.5	<0.69		<2.8	<2.8	<10.0	<10.0
CHLOROMETHANE	UG/L	<0.39	<0.39	<0.50	<0.50	<0.39		<1.6	<1.6	<2.0	<2.0
CIS-1,2-DICHLOROETHENE	UG/L	18.5	19.1	18.6	17.4	19.9		49.2	47.0	46.4	50.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.29	<0.29	<0.15	<0.50	<0.29		<1.2	<1.2	<0.59	<2.0
ETHYLBENZENE	UG/L	<0.50	<0.50	<0.50	<0.50	<0.50		<2.0	<2.0	<2.0	<2.0
METHYLENE CHLORIDE	UG/L	<0.36	<0.36	<0.23	<0.23	<0.36		<1.4	<1.4	<0.93	<0.93
STYRENE	UG/L	<0.35	<0.35	<0.15	<0.50	<0.35		<1.4	<1.4	<0.61	<2.0
TETRACHLOROETHENE	UG/L	<0.47	<0.47	<0.50	<0.50	<0.47		2.8 J	2.7 J	2.2 J	3.0 J
TOLUENE	UG/L	<0.44	<0.44	<0.50	<0.50	<0.44		<1.8	<1.8	<2.0	<2.0
TRANS-1,2-DICHLOROETHENE	UG/L	<0.37	<0.37	<0.24	<0.26	<0.37		<1.5	<1.5	<0.95	<1.0
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.30	<0.30	<0.23	<0.23	<0.30		<1.2	<1.2	<0.92	<0.92
TRICHLOROETHENE	UG/L	8.3	7.7	9.1	9.2	7.7		36.6	38.4	33.9	39.8
VINYL CHLORIDE	UG/L	<0.18	<0.18	<0.18	<0.18	<0.18	0.037 J	<0.74	<0.74	<0.70	<0.70
XYLENE, TOTAL	UG/L	<1.3	<1.3	<1.5	<1.5	<1.3		<5.3	<5.3	<6.0	<6.0

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	OW-101A LL 10/28/2013 391248	OW-103A 10/14/2013 4086965013	OW-104F 10/14/2013 4086965014	OW-104F DUP 10/14/2013 4086965017	RM-004D 10/15/2013 4086965003	RM-005D 10/17/2013 4086957002	RM-005D 1/17/2014 4091237001	RM-005D 3/28/2014 4094098003	RM-005D 6/26/2014 4098963002	RM-005D DUP 3/28/2014 4094098006
1,1,1-TRICHLOROETHANE	UG/L		< 0.44	8.6	8.4	0.52 J	34.3	28.7	28.7	25.0	29.2
1,1,2,2-TETRACHLOROETHANE	UG/L		< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.25	< 0.25	< 0.25
1,1,2-TRICHLOROETHANE	UG/L		< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.16	< 0.16	< 0.16
1,1-DICHLOROETHANE	UG/L		< 0.28	2.9	2.8	< 0.28	15.9	18.0	15.4	13.3	16.0
1,1-DICHLOROETHENE	UG/L		< 0.43	1.8	1.5	< 0.43	4.1	3.9	3.7	2.9	3.9
1,2-DICHLOROETHANE	UG/L		< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.17	< 0.17	< 0.17
1,2-DICHLOROPROPANE	UG/L		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.23	< 0.23	< 0.23
2-BUTANONE	UG/L		< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 3.0	< 3.0	< 3.0
2-HEXANONE	UG/L		< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 1.1	< 1.1	< 1.1
4-METHYL-2-PENTANONE	UG/L		< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.1	< 2.1	< 2.1
ACETONE	UG/L		< 2.6	< 2.6	< 2.6	< 2.6	< 2.6	2.9 Ju	< 3.0	< 3.0	< 3.0
BENZENE	UG/L		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
BROMODICHLOROMETHANE	UG/L		< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.50	< 0.50	< 0.50
BROMOFORM	UG/L		< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.50	< 0.50	< 0.50
BROMOMETHANE	UG/L		< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 2.4	< 2.4	< 2.4
CARBON DISULFIDE	UG/L		< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.51	< 0.61	< 0.51
CARBON TETRACHLORIDE	UG/L		< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.50	< 0.50	< 0.50
CHLOROBENZENE	UG/L		< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.50	< 0.50	< 0.50
CHLORODIBROMOMETHANE	UG/L		< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 0.32	< 0.50	< 0.32
CHLOROETHANE	UG/L		< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.37	< 0.37	< 0.37
CHLOROFORM	UG/L		< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.5	< 2.5	< 2.5
CHLOROMETHANE	UG/L		< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.50	< 0.50	< 0.50
CIS-1,2-DICHLOROETHENE	UG/L		< 0.42	2.5	2.4	< 0.42	8.1	9.2	9.0	7.2	9.3
CIS-1,3-DICHLOROPROPENE	UG/L		< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.15	< 0.50	< 0.15
ETHYLBENZENE	UG/L		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
METHYLENE CHLORIDE	UG/L		< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.23	< 0.23	< 0.23
STYRENE	UG/L		< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.15	< 0.50	< 0.15
TETRACHLOROETHENE	UG/L		< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.50	< 0.50	< 0.50
TOLUENE	UG/L		< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.50	< 0.50	< 0.50
TRANS-1,2-DICHLOROETHENE	UG/L		< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.24	< 0.26	< 0.24
TRANS-1,3-DICHLOROPROPENE	UG/L		< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.23	< 0.23	< 0.23
TRICHLOROETHENE	UG/L		< 0.36	3.7	3.5	< 0.36	4.2	3.8	3.9	4.1	4.0
VINYL CHLORIDE	UG/L	0.024 J	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
XYLENE, TOTAL	UG/L		< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.5	< 1.5	< 1.5

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-005D LL 10/17/2013 384438	RM-007D 10/28/2013 4087679002	RM-007D 1/16/2014 4091195001	RM-007D 4/2/2014 4094239003	RM-007D 6/28/2014 4098953002	RM-007D.LL 10/28/2013 391249	RM-007XD 10/30/2013 4087679005	RM-007XD 1/16/2014 4091195002	RM-007XD 4/3/2014 4094239004	RM-007XD 6/28/2014 4098953003
1,1,1-TRICHLOROETHANE	UG/L		317	482	462	353		248	262	259	240
1,1,2,2-TETRACHLOROETHANE	UG/L		< 1.9	< 1.9	< 1.2	< 1.2		< 0.96	< 0.38	< 0.62	< 0.50
1,1,2-TRICHLOROETHANE	UG/L		< 1.9	< 1.9	< 0.78	< 0.78		< 0.97	< 0.39	< 0.39	< 0.31
1,1-DICHLOROETHANE	UG/L		243	365	287	252		165	187	149	157
1,1-DICHLOROETHENE	UG/L		30.6	45.1	39.9	34.0		18.7	29.8	25.3	28.7
1,2-DICHLOROETHANE	UG/L		< 2.4	< 2.4	< 0.84	< 0.84		< 1.2	< 0.48	< 0.42	< 0.34
1,2-DICHLOROPROPANE	UG/L		< 2.5	< 2.5	< 1.2	< 1.2		< 1.2	< 0.50	< 0.58	< 0.47
2-BUTANONE	UG/L		< 13.5	< 13.5	< 14.9	< 14.9		< 6.7	< 2.7	< 7.4	< 6.0
2-HEXANONE	UG/L		< 12.7	< 12.7	< 5.6	< 5.6		< 6.4	< 2.5	< 2.8	< 2.2
4-METHYL-2-PENTANONE	UG/L		< 11.7	< 11.7	< 10.7	< 10.7		< 5.9	< 2.3	< 5.4	< 4.3
ACETONE	UG/L		< 12.9	< 12.9	< 14.8	< 14.8		< 6.5	2.7 Ju	< 7.4	< 5.9
BENZENE	UG/L		< 2.5	< 2.5	< 2.5	< 2.5		< 1.2	< 0.50	< 1.2	< 1.0
BROMODICHLOROMETHANE	UG/L		< 2.3	< 2.3	< 2.5	< 2.5		< 1.1	< 0.45	< 1.2	< 1.0
BROMOFORM	UG/L		< 1.6	< 1.6	< 2.5	< 2.5		< 0.82	< 0.33	< 1.2	< 1.0
BROMOMETHANE	UG/L		< 2.1	< 2.1	< 12.2	< 12.2		< 1.1	< 0.43	< 6.1	< 4.9
CARBON DISULFIDE	UG/L		< 3.5	< 3.5	< 2.6	< 3.1		< 1.8	< 0.71	< 1.3	< 1.2
CARBON TETRACHLORIDE	UG/L		< 1.8	< 1.8	< 2.5	< 2.5		< 0.91	< 0.37	< 1.2	< 1.0
CHLOROBENZENE	UG/L		< 1.8	< 1.8	< 2.5	< 2.5		< 0.90	< 0.36	< 1.2	< 1.0
CHLORODIBROMOMETHANE	UG/L		< 9.5	< 9.5	< 1.6	< 2.5		< 4.7	< 1.9	< 0.80	< 1.0
CHLOROETHANE	UG/L		< 2.2	3.0 J	3.4 J	17.3		1.1 J	1.2	1.1 J	1.2 J
CHLOROFORM	UG/L		< 3.4	< 3.4	< 12.5	< 12.5		< 1.7	< 0.69	< 6.2	< 5.0
CHLOROMETHANE	UG/L		< 1.9	< 1.9	< 2.5	< 2.5		< 0.97	< 0.39	< 1.2	< 1.0
CIS-1,2-DICHLOROETHENE	UG/L		90.3	128	109	94.0		68	79.2	65.9	80.0
CIS-1,3-DICHLOROPROPENE	UG/L		< 1.5	< 1.5	< 0.74	< 2.5		< 0.73	< 0.29	< 0.37	< 1.0
ETHYLBENZENE	UG/L		< 2.5	< 2.5	< 2.5	< 2.5		< 1.2	< 0.50	< 1.2	< 1.0
METHYLENE CHLORIDE	UG/L		< 1.8	< 1.8	< 1.2	< 1.2		< 0.90	< 0.36	< 0.58	< 0.47
STYRENE	UG/L		< 1.7	< 1.7	< 0.77	< 2.5		< 0.87	< 0.35	< 0.38	< 1.0
TETRACHLOROETHENE	UG/L		< 3.5 J	4.0 J	4.1 J	3.4 J		2.1 J	2.0	2.3 J	2.0
TOLUENE	UG/L		< 2.2	< 2.2	< 2.5	< 2.5		< 1.1	< 0.44	< 1.2	< 1.0
TRANS-1,2-DICHLOROETHENE	UG/L		< 1.9	1.9 J	< 1.2	< 1.3		1.5 J	< 0.37	< 0.59	< 0.51
TRANS-1,3-DICHLOROPROPENE	UG/L		< 1.5	< 1.5	< 1.1	< 1.1		< 0.76	< 0.30	< 0.57	< 0.46
TRICHLOROETHENE	UG/L		49.4	66.8	66.1	53.3		32.3	36.1	35.0	36.7
VINYL CHLORIDE	UG/L	< 0.014	< 0.92	< 0.92	< 0.88	2.1 J	0.084	< 0.46	< 0.18	< 0.44	< 0.35
XYLENE, TOTAL	UG/L		< 6.6	< 6.6	< 7.5	< 7.5		< 3.3	< 1.3	< 3.8	< 3.0

NOTES:

Laboratory data qualifiers are included in the laboratory reports in Appendix F. See specific laboratory report for Sample Delivery Group (SDG) definition. Data validation qualifiers are listed below.

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Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-007XD LL 10/30/2013 391252	RM-007XXD 10/30/2013 4087679006	RM-007XXD 1/16/2014 4091195003	RM-007XXD 4/3/2014 4094239005	RM-007XXD 6/28/2014 4098953004	RM-007XXD DUP 10/30/2013 4087679008	RM-007XXD DUP 1/16/2014 4091195005	RM-007XXD DUP 4/3/2014 4094239006	RM-007XXD DUP 6/28/2014 4098953005
1,1,1-TRICHLOROETHANE	UG/L		< 0.44	< 0.44	< 0.50	< 0.50	< 0.44	< 0.44	< 0.50	< 0.50
1,1,2,2-TETRACHLOROETHANE	UG/L		< 0.38	< 0.38	< 0.25	< 0.25	< 0.38	< 0.38	< 0.25	< 0.25
1,1,2-TRICHLOROETHANE	UG/L		< 0.39	< 0.39	< 0.16	< 0.16	< 0.39	< 0.39	< 0.16	< 0.16
1,1-DICHLOROETHANE	UG/L		1.2	0.95 J	1.1	0.49 J	1.4	0.97 J	1.1	0.44 J
1,1-DICHLOROETHENE	UG/L		< 0.43	< 0.43	< 0.41	< 0.41	< 0.43	< 0.43	< 0.41	< 0.41
1,2-DICHLOROETHANE	UG/L		< 0.48	< 0.48	< 0.17	< 0.17	< 0.48	< 0.48	< 0.17	< 0.17
1,2-DICHLOROPROPANE	UG/L		< 0.50	< 0.50	< 0.23	< 0.23	< 0.50	< 0.50	< 0.23	< 0.23
2-BUTANONE	UG/L		< 2.7	< 2.7	< 3.0	< 3.0	< 2.7	< 2.7	< 3.0	< 3.0
2-HEXANONE	UG/L		< 2.5	< 2.5	< 1.1	< 1.1	< 2.5	< 2.5	< 1.1	< 1.1
4-METHYL-2-PENTANONE	UG/L		< 2.3	< 2.3	< 2.1	< 2.1	< 2.3	< 2.3	< 2.1	< 2.1
ACETONE	UG/L		< 2.6	< 2.6	< 3.0	< 3.0	< 2.6	< 2.6	< 3.0	< 3.0
BENZENE	UG/L		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
BROMODICHLOROMETHANE	UG/L		< 0.45	< 0.45	< 0.50	< 0.50	< 0.45	< 0.45	< 0.50	< 0.50
BROMOFORM	UG/L		< 0.33	< 0.33	< 0.50	< 0.50	< 0.33	< 0.33	< 0.50	< 0.50
BROMOMETHANE	UG/L		< 0.43	< 0.43	< 2.4	< 2.4	< 0.43	< 0.43	< 2.4	< 2.4
CARBON DISULFIDE	UG/L		< 0.71 L3	< 0.71	< 0.51	< 0.61	< 0.71 L3	< 0.71	< 0.51	< 0.61
CARBON TETRACHLORIDE	UG/L		< 0.37	< 0.37	< 0.50	< 0.50	< 0.37	< 0.37	< 0.50	< 0.50
CHLOROBENZENE	UG/L		< 0.36	< 0.36	< 0.50	< 0.50	< 0.36	< 0.36	< 0.50	< 0.50
CHLORODIBROMOMETHANE	UG/L		< 1.9	< 1.9	< 0.32	< 0.50	< 1.9	< 1.9	< 0.32	< 0.50
CHLOROETHANE	UG/L		< 0.44	< 0.44	< 0.37	< 0.37	< 0.44	< 0.44	< 0.37	< 0.37
CHLOROFORM	UG/L		< 0.69	< 0.69	< 2.5	< 2.5	< 0.69	< 0.69	< 2.5	< 2.5
CHLOROMETHANE	UG/L		< 0.39	< 0.39	< 0.50	< 0.50	< 0.39	< 0.39	< 0.50	< 0.50
CIS-1,2-DICHLOROETHENE	UG/L		< 0.42	< 0.42	< 0.26	< 0.26	< 0.42	< 0.42	< 0.26	< 0.26
CIS-1,3-DICHLOROPROPENE	UG/L		< 0.29	< 0.29	< 0.15	< 0.50	< 0.29	< 0.29	< 0.15	< 0.50
ETHYLBENZENE	UG/L		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
METHYLENE CHLORIDE	UG/L		< 0.36	< 0.36	< 0.23	< 0.23	< 0.36	< 0.36	< 0.23	< 0.23
STYRENE	UG/L		< 0.35	< 0.35	< 0.15	< 0.50	< 0.35	< 0.35	< 0.15	< 0.50
TETRACHLOROETHENE	UG/L		< 0.47	< 0.47	< 0.50	< 0.50	< 0.47	< 0.47	< 0.50	< 0.50
TOLUENE	UG/L		< 0.44	< 0.44	< 0.50	< 0.50	< 0.44	< 0.44	< 0.50	< 0.50
TRANS-1,2-DICHLOROETHENE	UG/L		< 0.37	< 0.37	< 0.24	< 0.26	< 0.37	< 0.37	< 0.24	< 0.26
TRANS-1,3-DICHLOROPROPENE	UG/L		< 0.30	< 0.30	< 0.23	< 0.23	< 0.30	< 0.30	< 0.23	< 0.23
TRICHLOROETHENE	UG/L		< 0.36	< 0.36	< 0.33	< 0.33	< 0.36	< 0.36	< 0.33	< 0.33
VINYL CHLORIDE	UG/L	0.060	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
XYLENE, TOTAL	UG/L		< 1.3	< 1.3	< 1.5	< 1.5	< 1.3	< 1.3	< 1.5	< 1.5

NOTES:

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-007XXD LL	RM-007XXD LL DUP	RM-008D	RM-008D	RM-008D	RM-008D	RM-008D LL	RM-010D	RM-101D
		10/30/2013	10/30/2013	10/22/2013	1/10/2014	3/26/2014	6/27/2014	10/22/2013	10/11/2013	10/15/2013
		391253	391255	4087377001	4090998003	4093883006	4098976003	388543	4086965012	4086965001
1,1,1-TRICHLOROETHANE	UG/L			45.9	43.8	46.9	42.9		< 0.44	2.8
1,1,2,2-TETRACHLOROETHANE	UG/L			< 0.38	< 0.38	< 0.25	< 0.25		< 0.38	< 0.38
1,1,2-TRICHLOROETHANE	UG/L			< 0.39	< 0.39	< 0.16	< 0.16		< 0.39	< 0.39
1,1-DICHLOROETHANE	UG/L			20	16.0	17.7	26.0		< 0.28	2.4
1,1-DICHLOROETHENE	UG/L			2.2	2.5	2.4	1.3		< 0.43	< 0.43
1,2-DICHLOROETHANE	UG/L			< 0.48	< 0.48	< 0.17	< 0.17		< 0.48	< 0.48
1,2-DICHLOROPROPANE	UG/L			< 0.50	< 0.50	< 0.23	< 0.23		< 0.50	< 0.50
2-BUTANONE	UG/L			< 2.7	< 2.7	< 3.0	< 3.0		< 2.7	< 2.7
2-HEXANONE	UG/L			< 2.5	< 2.5	< 1.1	< 1.1		< 2.5	< 2.5
4-METHYL-2-PENTANONE	UG/L			< 2.3	< 2.3	< 2.1	< 2.1		< 2.3	< 2.3
ACETONE	UG/L			< 2.6	< 2.6	< 3.0	< 3.0		< 2.6	< 2.6
BENZENE	UG/L			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
BROMODICHLOROMETHANE	UG/L			< 0.45	< 0.45	< 0.50	< 0.50		< 0.45	< 0.45
BROMOFORM	UG/L			< 0.33	< 0.33	< 0.50	< 0.50		< 0.33	< 0.33
BROMOMETHANE	UG/L			< 0.43	< 0.43	< 2.4	< 2.4		< 0.43	< 0.43 R1
CARBON DISULFIDE	UG/L			< 0.71	< 0.71	< 0.51	< 0.61		< 0.71	< 0.71
CARBON TETRACHLORIDE	UG/L			< 0.37	< 0.37	< 0.50	< 0.50		< 0.37	< 0.37
CHLOROBENZENE	UG/L			< 0.36	< 0.36	< 0.50	< 0.50		< 0.36	< 0.36
CHLORODIBROMOMETHANE	UG/L			< 1.9	< 1.9	< 0.32	< 0.50		< 1.9	< 1.9
CHLOROETHANE	UG/L			< 0.44	< 0.44	< 0.37	0.43 J		< 0.44	< 0.44
CHLOROFORM	UG/L			< 0.69	< 0.69	< 2.5	< 2.5		< 0.69	< 0.69
CHLOROMETHANE	UG/L			< 0.39	< 0.39	< 0.50	< 0.50		< 0.39	< 0.39
CIS-1,2-DICHLOROETHENE	UG/L			11.1	8.6	9.9	13.7		< 0.42	0.56 J
CIS-1,3-DICHLOROPROPENE	UG/L			< 0.29	< 0.29	< 0.15	< 0.50		< 0.29	< 0.29
ETHYLBENZENE	UG/L			< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
METHYLENE CHLORIDE	UG/L			< 0.36	< 0.36	< 0.23	< 0.23		< 0.36	< 0.36
STYRENE	UG/L			< 0.35	< 0.35	< 0.15	< 0.50		< 0.35	< 0.35
TETRACHLOROETHENE	UG/L			< 0.47	< 0.47	< 0.50	< 0.50		< 0.47	< 0.47
TOLUENE	UG/L			< 0.44	< 0.44	< 0.50	< 0.50		< 0.44	< 0.44
TRANS-1,2-DICHLOROETHENE	UG/L			< 0.37	< 0.37	< 0.24	< 0.26		< 0.37	< 0.37
TRANS-1,3-DICHLOROPROPENE	UG/L			< 0.30	< 0.30	< 0.23	< 0.23		< 0.30	< 0.30
TRICHLOROETHENE	UG/L			7.6	5.6	6.4	10.8		< 0.36	1.1
VINYL CHLORIDE	UG/L	< 0.014	< 0.014	< 0.18	< 0.18	< 0.18	< 0.18	< 0.014	< 0.18	< 0.18
XYLENE, TOTAL	UG/L			< 1.3	< 1.3	< 1.5	< 1.5		< 1.3	< 1.3

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-101D 3/18/2014 4093768002	RM-102D 10/28/2013 4087679004	RM-102D 1/9/2014 4090998005	RM-102D 3/25/2014 4093883002	RM-102D 6/26/2014 4098963006	RM-102D LL 10/28/2013 391251	RM-103D 10/14/2013 4086965016	RM-202D 10/15/2013 4086965004	RM-203D 10/14/2013 4086965015	RM-203D 3/18/2014 4093768003
1,1,1-TRICHLOROETHANE	UG/L	2.4	< 0.44	< 0.44	< 0.50	< 0.50		6.7	< 0.44	2.3	1.8
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.38	< 0.38	< 0.38	< 0.25	< 0.25		< 0.38	< 0.38	< 0.38	< 0.38
1,1,2-TRICHLOROETHANE	UG/L	< 0.39	< 0.39	< 0.39	< 0.16	< 0.16		< 0.39	< 0.39	< 0.39	< 0.39
1,1-DICHLOROETHANE	UG/L	2.0	< 0.28	< 0.28	< 0.16	< 0.24		2.2	< 0.28	0.62 J	0.38 J
1,1-DICHLOROETHENE	UG/L	< 0.43	< 0.43	< 0.43	< 0.41	< 0.41		0.82 J	< 0.43	< 0.43	< 0.43
1,2-DICHLOROETHANE	UG/L	< 0.48	< 0.48	< 0.48	< 0.17	< 0.17		< 0.48	< 0.48	< 0.48	< 0.48
1,2-DICHLOROPROPANE	UG/L	< 0.50	< 0.50	< 0.50	< 0.23	< 0.23		< 0.50	< 0.50	< 0.50	< 0.50
2-BUTANONE	UG/L	< 2.7	< 2.7	< 2.7	< 3.0	< 3.0		< 2.7	< 2.7	< 2.7	< 2.7
2-HEXANONE	UG/L	< 2.5	< 2.5	< 2.5	< 1.1	< 1.1		< 2.5	< 2.5	< 2.5	< 2.5
4-METHYL-2-PENTANONE	UG/L	< 2.3	< 2.3	< 2.3	< 2.1	< 2.1		< 2.3	< 2.3	< 2.3	< 2.3
ACETONE	UG/L	< 2.6	< 2.6	6.5 Ju	< 3.0	< 3.0		< 2.6	< 2.6	< 2.6	< 2.6
BENZENE	UG/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50
BROMODICHLOROMETHANE	UG/L	< 0.45	< 0.45	< 0.45	< 0.50	< 0.50		< 0.45	< 0.45	< 0.45	< 0.45
BROMOFORM	UG/L	< 0.33	< 0.33	< 0.33	< 0.50	< 0.50		< 0.33	< 0.33	< 0.33	< 0.33
BROMOMETHANE	UG/L	< 0.43	< 0.43	< 0.43	< 2.4	< 2.4		< 0.43	< 0.43	< 0.43	< 0.43
CARBON DISULFIDE	UG/L	< 0.71	< 0.71 L3	< 0.71	< 0.51	< 0.61		< 0.71	< 0.71	< 0.71	< 0.71
CARBON TETRACHLORIDE	UG/L	< 0.37	< 0.37	< 0.37	< 0.50	< 0.50		< 0.37	< 0.37	< 0.37	< 0.37
CHLOROBENZENE	UG/L	< 0.36	< 0.36	< 0.36	< 0.50	< 0.50		< 0.36	< 0.36	< 0.36	< 0.36
CHLORODIBROMOMETHANE	UG/L	< 1.9	< 1.9	< 1.9	< 0.32	< 0.50		< 1.9	< 1.9	< 1.9	< 1.9
CHLOROETHANE	UG/L	< 0.44	< 0.44	< 0.44	< 0.37	< 0.37		< 0.44	< 0.44	< 0.44	< 0.44
CHLOROFORM	UG/L	< 0.69	< 0.69	< 0.69	< 2.5	< 2.5		< 0.69	< 0.69	< 0.69	< 0.69
CHLOROMETHANE	UG/L	< 0.39	< 0.39	< 0.39	< 0.50	< 0.50		< 0.39	< 0.39	< 0.39	< 0.39
CIS-1,2-DICHLOROETHENE	UG/L	0.46 J	< 0.42	< 0.42	< 0.26	< 0.26		1.8	< 0.42	< 0.42	< 0.42
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.29	< 0.29	< 0.29	< 0.15	< 0.50		< 0.29	< 0.29	< 0.29	< 0.29
ETHYLBENZENE	UG/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50
METHYLENE CHLORIDE	UG/L	< 0.36	< 0.36	< 0.36	< 0.23	< 0.23		< 0.36	< 0.36	< 0.36	< 0.36
STYRENE	UG/L	< 0.35	< 0.35	< 0.35	< 0.15	< 0.50		< 0.35	< 0.35	< 0.35	< 0.35
TETRACHLOROETHENE	UG/L	< 0.47	< 0.47	< 0.47	< 0.50	< 0.50		< 0.47	< 0.47	< 0.47	< 0.47
TOLUENE	UG/L	< 0.44	< 0.44	< 0.44	< 0.50	< 0.50		< 0.44	< 0.44	< 0.44	< 0.44
TRANS-1,2-DICHLOROETHENE	UG/L	< 0.37	< 0.37	< 0.37	< 0.24	< 0.26		< 0.37	< 0.37	< 0.37	< 0.37
TRANS-1,3-DICHLOROPROPENE	UG/L	< 0.30	< 0.30	< 0.30	< 0.23	< 0.23		< 0.30	< 0.30	< 0.30	< 0.30
TRICHLOROETHENE	UG/L	0.97 J	< 0.36	< 0.36	< 0.33	< 0.33		0.89 J	< 0.36	< 0.36	< 0.36
VINYL CHLORIDE	UG/L	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.014	< 0.18	< 0.18	< 0.18	< 0.18
XYLENE, TOTAL	UG/L	< 1.3	< 1.3	< 1.3	< 1.5	< 1.5		< 1.3	< 1.3	< 1.3	< 1.3

NOTES:

Laboratory data qualifiers are included in the laboratory reports in Appendix F. See specific laboratory report for Sample Delivery Group (SDG) definition. Data validation qualifiers are listed below.

j = The reported result is considered estimated.

u = Analyte is present at less than 10 times the concentration in the associated trip, field, storage, and/or laboratory method blank (B) for common laboratory contaminants, or at less than 5 times the blank concentration of other compounds and is therefore qualified as nondetectable (u) according to USEPA data validation procedures.

Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-204D 10/11/2013 4086957001	RM-204D 1/14/2014 4091194002	RM-204D 3/28/2014 4094098005	RM-204D 6/26/2014 4098963005	RM-204D LL 10/11/2013 384437	RM-208D 10/17/2013 4086957005	RM-208D 1/19/2014 4091236002	RM-208D 3/28/2014 4094098004	RM-208D 6/26/2014 4098963001	RM-208D DUP 10/17/2013 4086957006
1,1,1-TRICHLOROETHANE	UG/L	17.1	15.3	15.6	14.7		22.8	17.2	15.7	14.1	21.0
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.38	< 0.38	< 0.25	< 0.25		< 0.38	< 0.38	< 0.25	< 0.25	< 0.38
1,1,2-TRICHLOROETHANE	UG/L	< 0.39	< 0.39	< 0.16	< 0.16		< 0.39	< 0.39	< 0.16	< 0.16	< 0.39
1,1-DICHLOROETHANE	UG/L	8.4	9.1	7.6	7.1		10.7	9.1	7.8	6.8	9.9
1,1-DICHLOROETHENE	UG/L	1.3	1.6	1.4	1.1		3.0	2.3	2.2	2.1	2.4
1,2-DICHLOROETHANE	UG/L	< 0.48	< 0.48	< 0.17	< 0.17		< 0.48	< 0.48	< 0.17	< 0.17	< 0.48
1,2-DICHLOROPROPANE	UG/L	< 0.50	< 0.50	< 0.23	< 0.23		< 0.50	< 0.50	< 0.23	< 0.23	< 0.50
2-BUTANONE	UG/L	< 2.7	< 2.7	< 3.0	< 3.0		< 2.7	< 2.7	< 3.0	< 3.0	< 2.7
2-HEXANONE	UG/L	< 2.5	< 2.5	< 1.1	< 1.1		< 2.5	< 2.5	< 1.1	< 1.1	< 2.5
4-METHYL-2-PENTANONE	UG/L	< 2.3	< 2.3	< 2.1	< 2.1		< 2.3	< 2.3	< 2.1	< 2.1	< 2.3
ACETONE	UG/L	< 2.6	4.0 Ju	< 3.0	< 3.0		< 2.6	< 2.6	< 3.0	< 3.0	< 2.6
BENZENE	UG/L	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
BROMODICHLOROMETHANE	UG/L	< 0.45	< 0.45	< 0.50	< 0.50		< 0.45	< 0.45	< 0.50	< 0.50	< 0.45
BROMOFORM	UG/L	< 0.33	< 0.33	< 0.50	< 0.50		< 0.33	< 0.33	< 0.50	< 0.50	< 0.33
BROMOMETHANE	UG/L	< 0.43	< 0.43	< 2.4	< 2.4		< 0.43	< 0.43	< 2.4	< 2.4	< 0.43
CARBON DISULFIDE	UG/L	< 0.71	< 0.71	< 0.51	< 0.61		< 0.71	< 0.71	< 0.51	< 0.61	< 0.71
CARBON TETRACHLORIDE	UG/L	< 0.37	< 0.37	< 0.50	< 0.50		< 0.37	< 0.37	< 0.50	< 0.50	< 0.37
CHLOROBENZENE	UG/L	< 0.36	< 0.36	< 0.50	< 0.50		< 0.36	< 0.36	< 0.50	< 0.50	< 0.36
CHLORODIBROMOMETHANE	UG/L	< 1.9	< 1.9	< 0.32	< 0.50		< 1.9	< 1.9	< 0.32	< 0.50	< 1.9
CHLOROETHANE	UG/L	< 0.44	< 0.44	< 0.37	< 0.37		< 0.44	< 0.44	0.69 J	< 0.37	< 0.44
CHLOROFORM	UG/L	< 0.69	< 0.69	< 2.5	< 2.5		< 0.69	< 0.69	< 2.5	< 2.5	< 0.69
CHLOROMETHANE	UG/L	< 0.39	< 0.39	< 0.50	< 0.50		< 0.39	< 0.39	< 0.50	< 0.50	< 0.39
CIS-1,2-DICHLOROETHENE	UG/L	1.9	2.2	2.3	1.9		5.8	6.4	5.6	6.3	5.6
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.29	< 0.29	< 0.15	< 0.50		< 0.29	< 0.29	< 0.15	< 0.50	< 0.29
ETHYLBENZENE	UG/L	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
METHYLENE CHLORIDE	UG/L	< 0.36	< 0.36	< 0.23	< 0.23		< 0.36	< 0.36	< 0.23	< 0.23	< 0.36
STYRENE	UG/L	< 0.35	< 0.35	< 0.15	< 0.50		< 0.35	< 0.35	< 0.15	< 0.50	< 0.35
TETRACHLOROETHENE	UG/L	< 0.47	< 0.47	< 0.50	< 0.50		< 0.47	< 0.47	< 0.50	< 0.50	< 0.47
TOLUENE	UG/L	< 0.44	< 0.44	< 0.50	< 0.50		< 0.44	< 0.44	< 0.50	< 0.50	< 0.44
TRANS-1,2-DICHLOROETHENE	UG/L	< 0.37	< 0.37	< 0.24	< 0.26		< 0.37	< 0.37	< 0.24	< 0.26	< 0.37
TRANS-1,3-DICHLOROPROPENE	UG/L	< 0.30	< 0.30	< 0.23	< 0.23		< 0.30	< 0.30	< 0.23	< 0.23	< 0.30
TRICHLOROETHENE	UG/L	1.2	1.4	1.4	1.5		2.9	3.1	2.6	3.5	2.6
VINYL CHLORIDE	UG/L	< 0.18	< 0.18	< 0.18	< 0.18	< 0.014	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
XYLENE, TOTAL	UG/L	< 1.3	< 1.3	< 1.5	< 1.5		< 1.3	< 1.3	< 1.5	< 1.5	< 1.3

NOTES:

Laboratory data qualifiers are included in the laboratory reports in Appendix F. See specific laboratory report for Sample Delivery Group (SDG) definition. Data validation qualifiers are listed below.

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Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-208D DUP	RM-208D LL	RM-208D LL DUP	RM-208XD	RM-208XD	RM-208XD DUP	RM-209D	RM-209D	RM-209D
		6/26/2014	10/17/2013	10/17/2013	10/16/2013	3/18/2014	10/16/2013	10/23/2013	1/14/2014	4/1/2014
		4098963007	384441	384442	4086965007	4093768001	4086965009	4087377005	4091194001	4094096001
1,1,1-TRICHLOROETHANE	UG/L	13.7			< 0.44	< 0.44	< 0.44	169	150	164
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.25			< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.25
1,1,2-TRICHLOROETHANE	UG/L	< 0.16			< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.16
1,1-DICHLOROETHANE	UG/L	6.5			< 0.28	< 0.28	< 0.28	74.9	80.0	69.0
1,1-DICHLOROETHENE	UG/L	2.0			< 0.43	< 0.43	< 0.43	8.9	8.8	10
1,2-DICHLOROETHANE	UG/L	< 0.17			< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.17
1,2-DICHLOROPROPANE	UG/L	< 0.23			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.23
2-BUTANONE	UG/L	< 3.0			< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 3.0
2-HEXANONE	UG/L	< 1.1			< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 1.1
4-METHYL-2-PENTANONE	UG/L	< 2.1			< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.1
ACETONE	UG/L	< 3.0			< 2.6	< 2.6	< 2.6	< 2.6	< 2.6	< 3.0
BENZENE	UG/L	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
BROMODICHLOROMETHANE	UG/L	< 0.50			< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.50
BROMOFORM	UG/L	< 0.50			< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.50
BROMOMETHANE	UG/L	< 2.4			< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 2.4
CARBON DISULFIDE	UG/L	< 0.61			< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.51
CARBON TETRACHLORIDE	UG/L	< 0.50			< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.50
CHLOROBENZENE	UG/L	< 0.50			< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.50
CHLORODIBROMOMETHANE	UG/L	< 0.50			< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 0.32
CHLOROETHANE	UG/L	< 0.37			< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	0.44 J
CHLOROFORM	UG/L	< 2.5			< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.5
CHLOROMETHANE	UG/L	< 0.50			< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.50
CIS-1,2-DICHLOROETHENE	UG/L	6.0			< 0.42	< 0.42	< 0.42	19.4	21.1	18.2
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.50			< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.15
ETHYLBENZENE	UG/L	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
METHYLENE CHLORIDE	UG/L	< 0.23			< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.23
STYRENE	UG/L	< 0.50			< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.15
TETRACHLOROETHENE	UG/L	< 0.50			< 0.47	< 0.47	< 0.47	1.3	1.1	1.2
TOLUENE	UG/L	< 0.50			< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.50
TRANS-1,2-DICHLOROETHENE	UG/L	< 0.26			< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.24
TRANS-1,3-DICHLOROPROPENE	UG/L	< 0.23			< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.23
TRICHLOROETHENE	UG/L	3.3			< 0.36	< 0.36	< 0.36	18.6	19.5	16.5
VINYL CHLORIDE	UG/L	< 0.18	< 0.014	< 0.014	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
XYLENE, TOTAL	UG/L	< 1.5			< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.5

NOTES:

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-209D 6/29/2014 4098976010	RM-209D LL 10/23/2013 388547	RM-213D 10/15/2013 4086965002	RM-213XD 10/23/2013 4087377006	RM-213XD 1/13/2014 4090999002	RM-213XD 3/25/2014 4093883001	RM-213XD 6/27/2014 4098976002	RM-213XD LL 10/23/2013 388548	RM-214D 10/22/2013 4087377004	RM-214D 1/13/2014 4090999003
1,1,1-TRICHLOROETHANE	UG/L	137		5.4	21.5	7.7	13.3	14.2		15.5	14.9
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.25		< 0.38	< 0.38	< 0.38	< 0.25	< 0.25		< 0.38	< 0.38
1,1,2-TRICHLOROETHANE	UG/L	< 0.16		< 0.39	< 0.39	< 0.39	< 0.16	< 0.16		< 0.39	< 0.39
1,1-DICHLOROETHANE	UG/L	41.1		0.93 J	6.8	2.0	3.9	4.0		8	8.3
1,1-DICHLOROETHENE	UG/L	4.7		< 0.43	2.7	1.1	1.9	1.9		1.1	1.2
1,2-DICHLOROETHANE	UG/L	< 0.17		< 0.48	< 0.48	< 0.48	< 0.17	< 0.17		< 0.48	< 0.48
1,2-DICHLOROPROPANE	UG/L	< 0.23		< 0.50	< 0.50	< 0.50	< 0.23	< 0.23		< 0.50	< 0.50
2-BUTANONE	UG/L	< 3.0		< 2.7	< 2.7	< 2.7	< 3.0	< 3.0		< 2.7	< 2.7
2-HEXANONE	UG/L	< 1.1		< 2.5	< 2.5	< 2.5	< 1.1	< 1.1		< 2.5	< 2.5
4-METHYL-2-PENTANONE	UG/L	< 2.1		< 2.3	< 2.3	< 2.3	< 2.1	< 2.1		< 2.3	< 2.3
ACETONE	UG/L	< 3.0		< 2.6	< 2.6	5.2 Ju	< 3.0	< 3.0		< 2.6	< 2.6
BENZENE	UG/L	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
BROMODICHLOROMETHANE	UG/L	< 0.50		< 0.45	< 0.45	< 0.45	< 0.50	< 0.50		< 0.45	< 0.45
BROMOFORM	UG/L	< 0.50		< 0.33	< 0.33	< 0.33	< 0.50	< 0.50		< 0.33	< 0.33
BROMOMETHANE	UG/L	< 2.4		< 0.43	< 0.43	< 0.43	< 2.4	< 2.4		< 0.43	< 0.43
CARBON DISULFIDE	UG/L	< 0.61		< 0.71	< 0.71	< 0.71	< 0.51	< 0.61		< 0.71	< 0.71
CARBON TETRACHLORIDE	UG/L	< 0.50		< 0.37	< 0.37	< 0.37	< 0.50	< 0.50		< 0.37	< 0.37
CHLOROBENZENE	UG/L	< 0.50		< 0.36	< 0.36	< 0.36	< 0.50	< 0.50		< 0.36	< 0.36
CHLORODIBROMOMETHANE	UG/L	< 0.50		< 1.9	< 1.9	< 1.9	< 0.32	< 0.50		< 1.9	< 1.9
CHLOROETHANE	UG/L	< 0.37		< 0.44	< 0.44	< 0.44	< 0.37	< 0.37		< 0.44	< 0.44
CHLOROFORM	UG/L	< 2.5		< 0.69	< 0.69	< 0.69	< 2.5	< 2.5		< 0.69	< 0.69
CHLOROMETHANE	UG/L	< 0.50		< 0.39	< 0.39	< 0.39	< 0.50	< 0.50		< 0.39	< 0.39
CIS-1,2-DICHLOROETHENE	UG/L	8.8		1.3	5.3	1.5	3.3	3.3		25.1	24.9
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.50		< 0.29	< 0.29	< 0.29	< 0.15	< 0.50		< 0.29	< 0.29
ETHYLBENZENE	UG/L	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
METHYLENE CHLORIDE	UG/L	< 0.23		< 0.36	< 0.36	< 0.36	< 0.23	< 0.23		< 0.36	< 0.36
STYRENE	UG/L	< 0.50		< 0.35	< 0.35	< 0.35	< 0.15	< 0.50		< 0.35	< 0.35
TETRACHLOROETHENE	UG/L	1.3		< 0.47	< 0.47	< 0.47	< 0.50	< 0.50		< 0.47	< 0.47
TOLUENE	UG/L	< 0.50		< 0.44	< 0.44	< 0.44	< 0.50	< 0.50		< 0.44	< 0.44
TRANS-1,2-DICHLOROETHENE	UG/L	< 0.26		< 0.37	< 0.37	< 0.37	< 0.24	< 0.26		< 0.37	< 0.37
TRANS-1,3-DICHLOROPROPENE	UG/L	< 0.23		< 0.30	< 0.30	< 0.30	< 0.23	< 0.23		< 0.30	< 0.30
TRICHLOROETHENE	UG/L	21.0		0.84 J	3.4	1.3	2.3	2.5		4.1	4.0
VINYL CHLORIDE	UG/L	< 0.18	0.028 J	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.014	1.6	2.0
XYLENE, TOTAL	UG/L	< 1.5		< 1.3	< 1.3	< 1.3	< 1.5	< 1.5		< 1.3	< 1.3

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Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-214D 3/25/2014 4093883003	RM-214D 6/27/2014 4098976001	RM-214D LL 10/22/2013 388546	RM-303D 10/24/2013 4087377008	RM-303D 1/15/2014 4091194004	RM-303D 4/1/2014 4094096003	RM-303D 6/29/2014 4098976009	RM-303D LL 10/24/2013 388550	RM-304D 10/16/2013 4086965005	RM-305D 10/16/2013 4086965008
1,1,1-TRICHLOROETHANE	UG/L	13.8	14.2		462	482	237	104		3.2	2.1
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.25	<0.25		<1.9	<1.9	<1.2	<0.25		<0.38	<0.38
1,1,2-TRICHLOROETHANE	UG/L	<0.16	<0.16		<1.9	<1.9	<0.78	0.18 J		<0.39	<0.39
1,1-DICHLOROETHANE	UG/L	7.4	6.5		410	471	203	66.4		<0.28	<0.28
1,1-DICHLOROETHENE	UG/L	0.98 J	1.0 J		15.8	22.4	12.5	3.2		<0.43	<0.43
1,2-DICHLOROETHANE	UG/L	<0.17	<0.17		<2.4	<2.4	<0.84	<0.17		<0.48	<0.48
1,2-DICHLOROPROPANE	UG/L	<0.23	<0.23		<2.5	<2.5	<1.2	<0.23		<0.50	<0.50
2-BUTANONE	UG/L	<3.0	<3.0		<13.5	<13.5	<14.9	<3.0		<2.7	<2.7
2-HEXANONE	UG/L	<1.1	<1.1		<12.7	<12.7	<5.6	<1.1		<2.5	<2.5
4-METHYL-2-PENTANONE	UG/L	<2.1	<2.1		<11.7	<11.7	<10.7	<2.1		<2.3	<2.3
ACETONE	UG/L	<3.0	<3.0		<12.9	<12.9	<14.8	<3.0		<2.6	<2.6
BENZENE	UG/L	<0.50	<0.50		<2.5	<2.5	<2.5	<0.50		<0.50	<0.50
BROMODICHLOROMETHANE	UG/L	<0.50	<0.50		<2.3	<2.3	<2.5	<0.50		<0.45	<0.45
BROMOFORM	UG/L	<0.50	<0.50		<1.6	<1.6	<2.5	<0.50		<0.33	<0.33
BROMOMETHANE	UG/L	<2.4	<2.4		<2.1	<2.1	<12.2	<2.4		<0.43	<0.43
CARBON DISULFIDE	UG/L	<0.51	<0.61		<3.5	<3.5	<2.6	<0.61		<0.71	<0.71
CARBON TETRACHLORIDE	UG/L	<0.50	<0.50		<1.8	<1.8	<2.5	<0.50		<0.37	<0.37
CHLOROBENZENE	UG/L	<0.50	<0.50		<1.8	<1.8	<2.5	<0.50		<0.36	<0.36
CHLORODIBROMOMETHANE	UG/L	<0.32	<0.50		<9.5	<9.5	<1.6	<0.50		<1.9	<1.9
CHLOROETHANE	UG/L	<0.37	<0.37		<2.2	<2.2	<1.9	17.7		<0.44	<0.44
CHLOROFORM	UG/L	<2.5	<2.5		<3.4	<3.4	<12.5	<2.5		<0.69	<0.69
CHLOROMETHANE	UG/L	<0.50	<0.50		<1.9	<1.9	<2.5	<0.50		<0.39	<0.39
CIS-1,2-DICHLOROETHENE	UG/L	23.2	22.8		147	172	88.6	33.7		<0.42	<0.42
CIS-1,3-DICHLOROPROPENE	UG/L	<0.15	<0.50		<1.5	<1.5	<0.74	<0.50		<0.29	<0.29
ETHYLBENZENE	UG/L	<0.50	<0.50		<2.5	<2.5	<2.5	<0.50		<0.50	<0.50
METHYLENE CHLORIDE	UG/L	<0.23	<0.23		<1.8	<1.8	<1.2	<0.23		<0.36	<0.36
STYRENE	UG/L	<0.15	<0.50		<1.7	<1.7	<0.77	<0.50		<0.35	<0.35
TETRACHLOROETHENE	UG/L	<0.50	<0.50		3.3 J	3.1 J	<2.5	0.79 J		<0.47	<0.47
TOLUENE	UG/L	<0.50	<0.50		<2.2	<2.2	<2.5	<0.50		<0.44	<0.44
TRANS-1,2-DICHLOROETHENE	UG/L	<0.24	<0.26		<1.9	<1.9	<1.2	<0.26		<0.37	<0.37
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.23	<0.23		<1.5	<1.5	<1.1	<0.23		<0.30	<0.30
TRICHLOROETHENE	UG/L	3.8	4.4		106	115	56.7	28.4		<0.36	0.63 J
VINYL CHLORIDE	UG/L	1.8	0.98 J	1.2	<0.92	<0.92	<0.88	1.6	<0.014	<0.18	<0.18
XYLENE, TOTAL	UG/L	<1.5	<1.5		<6.6	<6.6	<7.5	<1.5		<1.3	<1.3

NOTES:

Laboratory data qualifiers are included in the laboratory reports in Appendix F. See specific laboratory report for Sample Delivery Group (SDG) definition. Data validation qualifiers are listed below.

j = The reported result is considered estimated.

u = Analyte is present at less than 10 times the concentration in the associated trip, field, storage, and/or laboratory method blank (B) for common laboratory contaminants, or at less than 5 times the blank concentration of other compounds and is therefore qualified as nondetectable (u) according to USEPA data validation procedures.

Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-306D 10/30/2013 4087679007	RM-306D 1/15/2014 4091194003	RM-306D 4/2/2014 4094239001	RM-306D 6/29/2014 4098976011	RM-306D LL 10/30/2013 391254	RM-307D 10/28/2013 4087679003	RM-307D 1/16/2014 4091195004	RM-307D 4/2/2014 4094239002	RM-307D 6/29/2014 4098976012	RM-307D LL 10/28/2013 391250
1,1,1-TRICHLOROETHANE	UG/L	98.7	80.3	79.9	62.7		168	118	96.0	120	
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.38	< 0.38	< 0.25	< 0.25		< 0.38	< 0.38	< 0.25	< 0.25	
1,1,2-TRICHLOROETHANE	UG/L	< 0.39	< 0.39	< 0.16	< 0.16		< 0.39	< 0.39	< 0.16	< 0.16	
1,1-DICHLOROETHANE	UG/L	18.9	14.9	11.8	8.2		73.8	43.3	21.4	19.8	
1,1-DICHLOROETHENE	UG/L	4.7	4.2	3.7	2.4		6.7	5.0	3.8	4.6	
1,2-DICHLOROETHANE	UG/L	< 0.48	< 0.48	< 0.17	< 0.17		< 0.48	< 0.48	< 0.17	< 0.17	
1,2-DICHLOROPROPANE	UG/L	< 0.50	< 0.50	< 0.23	< 0.23		< 0.50	< 0.50	< 0.23	< 0.23	
2-BUTANONE	UG/L	< 2.7	< 2.7	< 3.0	< 3.0		< 2.7	< 2.7	< 3.0	< 3.0	
2-HEXANONE	UG/L	< 2.5	< 2.5	< 1.1	< 1.1		< 2.5	< 2.5	< 1.1	< 1.1	
4-METHYL-2-PENTANONE	UG/L	< 2.3	< 2.3	< 2.1	< 2.1		< 2.3	< 2.3	< 2.1	< 2.1	
ACETONE	UG/L	< 2.6	< 2.6	< 3.0	< 3.0		< 2.6	< 2.6	< 3.0	< 3.0	
BENZENE	UG/L	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	
BROMODICHLOROMETHANE	UG/L	< 0.45	< 0.45	< 0.50	< 0.50		< 0.45	< 0.45	< 0.50	< 0.50	
BROMOFORM	UG/L	< 0.33	< 0.33	< 0.50	< 0.50		< 0.33	< 0.33	< 0.50	< 0.50	
BROMOMETHANE	UG/L	< 0.43	< 0.43	< 2.4	< 2.4		< 0.43	< 0.43	< 2.4	< 2.4	
CARBON DISULFIDE	UG/L	< 0.71 L3	< 0.71	< 0.51	< 0.61		< 0.71 L3	< 0.71	< 0.51	< 0.61	
CARBON TETRACHLORIDE	UG/L	< 0.37	< 0.37	< 0.50	< 0.50		< 0.37	< 0.37	< 0.50	< 0.50	
CHLOROBENZENE	UG/L	< 0.36	< 0.36	< 0.50	< 0.50		< 0.36	< 0.36	< 0.50	< 0.50	
CHLORODIBROMOMETHANE	UG/L	< 1.9	< 1.9	< 0.32	< 0.50		< 1.9	< 1.9	< 0.32	< 0.50	
CHLOROETHANE	UG/L	< 0.44	< 0.44	< 0.37	< 0.37		< 0.44	< 0.44	< 0.37	< 0.37	
CHLOROFORM	UG/L	< 0.69	< 0.69	< 2.5	< 2.5		< 0.69	< 0.69	< 2.5	< 2.5	
CHLOROMETHANE	UG/L	< 0.39	< 0.39	< 0.50	< 0.50		< 0.39	< 0.39	< 0.50	< 0.50	
CIS-1,2-DICHLOROETHENE	UG/L	1.1	0.77 J	0.84 J	0.49 J		7.5	5.5	3.2	2.7	
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.29	< 0.29	< 0.15	< 0.50		< 0.29	< 0.29	< 0.15	< 0.50	
ETHYLBENZENE	UG/L	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50	
METHYLENE CHLORIDE	UG/L	< 0.36	< 0.36	< 0.23	< 0.23		< 0.36	< 0.36	< 0.23	< 0.23	
STYRENE	UG/L	< 0.35	< 0.35	< 0.15	< 0.50		< 0.35	< 0.35	< 0.15	< 0.50	
TETRACHLOROETHENE	UG/L	0.67 J	0.69 J	0.65 J	0.57 J		1.1	0.82 J	1.0	1.1	
TOLUENE	UG/L	< 0.44	< 0.44	< 0.50	< 0.50		< 0.44	< 0.44	< 0.50	< 0.50	
TRANS-1,2-DICHLOROETHENE	UG/L	< 0.37	< 0.37	< 0.24	< 0.26		< 0.37	< 0.37	< 0.24	< 0.26	
TRANS-1,3-DICHLOROPROPENE	UG/L	< 0.30	< 0.30	< 0.23	< 0.23		< 0.30	< 0.30	< 0.23	< 0.23	
TRICHLOROETHENE	UG/L	5.6	5.2	5.0	4.5		15.4	12.2	10.1	10.3	
VINYL CHLORIDE	UG/L	< 0.18	< 0.18	< 0.18	< 0.18	0.019 J	< 0.18	< 0.18	< 0.18	< 0.18	< 0.014
XYLENE, TOTAL	UG/L	< 1.3	< 1.3	< 1.5	< 1.5		< 1.3	< 1.3	< 1.5	< 1.5	

NOTES:

Laboratory data qualifiers are included in the laboratory reports in Appendix F. See specific laboratory report for Sample Delivery Group (SDG) definition. Data validation qualifiers are listed below.

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u = Analyte is present at less than 10 times the concentration in the associated trip, field, storage, and/or laboratory method blank (B) for common laboratory contaminants, or at less than 5 times the blank concentration of other compounds and is therefore qualified as nondetectable (u) according to USEPA data validation procedures.

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-308D 10/16/2013 4086965006	RM-401XD 10/17/2013 4086957003	RM-401XD 1/17/2014 4091237002	RM-401XD 3/28/2014 4094098002	RM-401XD 6/26/2014 4098963004	RM-401XD LL 10/17/2013 384439	RM-401XXD 10/17/2013 4086957004	RM-401XXD 1/17/2014 4091237003	RM-401XXD 3/28/2014 4094098001	RM-401XXD 6/26/2014 4098963003
1,1,1-TRICHLOROETHANE	UG/L	< 0.44	22.8	16.5	11.1	9.0		21.8	18.6	14.2	9.9
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.38	< 0.38	< 0.38	< 0.25	< 0.25		< 0.38	< 0.38	< 0.25	< 0.25
1,1,2-TRICHLOROETHANE	UG/L	< 0.39	< 0.39	< 0.39	< 0.16	< 0.16		< 0.39	< 0.39	< 0.16	< 0.16
1,1-DICHLOROETHANE	UG/L	< 0.28	10.3	10.1	5.1	4.0		12.9	11.8	6.2	4.6
1,1-DICHLOROETHENE	UG/L	< 0.43	3.4	3.3	2.7	1.9		6.8	5.3	3.4	2.2
1,2-DICHLOROETHANE	UG/L	< 0.48	< 0.48	< 0.48	< 0.17	< 0.17		< 0.48	< 0.48	< 0.17	< 0.17
1,2-DICHLOROPROPANE	UG/L	< 0.50	< 0.50	< 0.50	< 0.23	< 0.23		< 0.50	< 0.50	< 0.23	< 0.23
2-BUTANONE	UG/L	< 2.7	< 2.7	< 2.7	< 3.0	< 3.0		< 2.7	< 2.7	< 3.0	< 3.0
2-HEXANONE	UG/L	< 2.5	< 2.5	< 2.5	< 1.1	< 1.1		< 2.5	< 2.5	< 1.1	< 1.1
4-METHYL-2-PENTANONE	UG/L	< 2.3	< 2.3	< 2.3	< 2.1	< 2.1		< 2.3	< 2.3	< 2.1	< 2.1
ACETONE	UG/L	< 2.6	< 2.6	< 2.6	< 3.0	< 3.0		< 2.6	< 2.6	< 3.0	< 3.0
BENZENE	UG/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50
BROMODICHLOROMETHANE	UG/L	< 0.45	< 0.45	< 0.45	< 0.50	< 0.50		< 0.45	< 0.45	< 0.50	< 0.50
BROMOFORM	UG/L	< 0.33	< 0.33	< 0.33	< 0.50	< 0.50		< 0.33	< 0.33	< 0.50	< 0.50
BROMOMETHANE	UG/L	< 0.43	< 0.43	< 0.43	< 2.4	< 2.4		< 0.43	< 0.43	< 2.4	< 2.4
CARBON DISULFIDE	UG/L	< 0.71	< 0.71	< 0.71	< 0.51	< 0.61		< 0.71	< 0.71	< 0.51	< 0.61
CARBON TETRACHLORIDE	UG/L	< 0.37	< 0.37	< 0.37	< 0.50	< 0.50		< 0.37	< 0.37	< 0.50	< 0.50
CHLOROBENZENE	UG/L	< 0.36	< 0.36	< 0.36	< 0.50	< 0.50		< 0.36	< 0.36	< 0.50	< 0.50
CHLORODIBROMOMETHANE	UG/L	< 1.9	< 1.9	< 1.9	< 0.32	< 0.50		< 1.9	< 1.9	< 0.32	< 0.50
CHLOROETHANE	UG/L	< 0.44	< 0.44	< 0.44	< 0.37	< 0.37		< 0.44	< 0.44	< 0.37	< 0.37
CHLOROFORM	UG/L	< 0.69	< 0.69	< 0.69	< 2.5	< 2.5		< 0.69	< 0.69	< 2.5	< 2.5
CHLOROMETHANE	UG/L	< 0.39	< 0.39	< 0.39	< 0.50	< 0.50		< 0.39	< 0.39	< 0.50	< 0.50
CIS-1,2-DICHLOROETHENE	UG/L	< 0.42	6.3	7.6	7.0	5.1		14.9	14.9	9.6	6.2
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.29	< 0.29	< 0.29	< 0.15	< 0.50		< 0.29	< 0.29	< 0.15	< 0.50
ETHYLBENZENE	UG/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50
METHYLENE CHLORIDE	UG/L	< 0.36	< 0.36	< 0.36	< 0.23	< 0.23		< 0.36	< 0.36	< 0.23	< 0.23
STYRENE	UG/L	< 0.35	< 0.35	< 0.35	< 0.15	< 0.50		< 0.35	< 0.35	< 0.15	< 0.50
TETRACHLOROETHENE	UG/L	< 0.47	< 0.47	< 0.47	< 0.50	< 0.50		< 0.47	< 0.47	< 0.50	< 0.50
TOLUENE	UG/L	< 0.44	< 0.44	< 0.44	< 0.50	< 0.50		< 0.44	< 0.44	< 0.50	< 0.50
TRANS-1,2-DICHLOROETHENE	UG/L	< 0.37	< 0.37	< 0.37	< 0.24	< 0.26		< 0.37	< 0.37	< 0.24	< 0.26
TRANS-1,3-DICHLOROPROPENE	UG/L	< 0.30	< 0.30	< 0.30	< 0.23	< 0.23		< 0.30	< 0.30	< 0.23	< 0.23
TRICHLOROETHENE	UG/L	< 0.36	2.8	2.5	1.8	1.8		3.7	3.7	3.2	2.5
VINYL CHLORIDE	UG/L	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.014	< 0.18	< 0.18	< 0.18	< 0.18
XYLENE, TOTAL	UG/L	< 1.3	< 1.3	< 1.3	< 1.5	< 1.5		< 1.3	< 1.3	< 1.5	< 1.5

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Non-detect results are reported as "< Limit of Detection (LOD)"

**LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014**

PARAMETER	UNITS	RM-401XXD LL 10/17/2013 384440	RM-402XD 10/22/2013 4087377002	RM-402XD 1/10/2014 4090998002	RM-402XD 3/26/2014 4093883005	RM-402XD 6/27/2014 4098976004	RM-402XD DUP 3/26/2014 4093883008	RM-402XD LL 10/22/2013 388544	RM-402XXD 10/22/2013 4087377003	RM-402XXD 1/10/2014 4090998001
1,1,1-TRICHLOROETHANE	UG/L		151	160	155	133	155		60.6	62.0
1,1,2,2-TETRACHLOROETHANE	UG/L		< 0.38	< 0.38	< 0.25	< 0.25	< 0.25		< 0.38	< 0.38
1,1,2-TRICHLOROETHANE	UG/L		< 0.39	< 0.39	< 0.16	< 0.16	< 0.16		< 0.39	< 0.39
1,1-DICHLOROETHANE	UG/L		42.4	45.3	43.7	34.3	43.6		34.7	33.6
1,1-DICHLOROETHENE	UG/L		26.9	25.6	22.1	17.3	22.7		6.8	6.1
1,2-DICHLOROETHANE	UG/L		< 0.48	< 0.48	< 0.17	< 0.17	< 0.17		< 0.48	< 0.48
1,2-DICHLOROPROPANE	UG/L		< 0.50	< 0.50	< 0.23	< 0.23	< 0.23		< 0.50	< 0.50
2-BUTANONE	UG/L		< 2.7	< 2.7	< 3.0	< 3.0	< 3.0		< 2.7	< 2.7
2-HEXANONE	UG/L		< 2.5	< 2.5	< 1.1	< 1.1	< 1.1		< 2.5	< 2.5
4-METHYL-2-PENTANONE	UG/L		< 2.3	< 2.3	< 2.1	< 2.1	< 2.1		< 2.3	< 2.3
ACETONE	UG/L		< 2.6	< 2.6	< 3.0	< 3.0	< 3.0		< 2.6	< 2.6
BENZENE	UG/L		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
BROMODICHLOROMETHANE	UG/L		< 0.45	< 0.45	< 0.50	< 0.50	< 0.50		< 0.45	< 0.45
BROMOFORM	UG/L		< 0.33	< 0.33	< 0.50	< 0.50	< 0.50		< 0.33	< 0.33
BROMOMETHANE	UG/L		< 0.43	< 0.43	< 2.4	< 2.4	< 2.4		< 0.43	< 0.43
CARBON DISULFIDE	UG/L		< 0.71	< 0.71	< 0.51	< 0.61	< 0.51		< 0.71	< 0.71
CARBON TETRACHLORIDE	UG/L		< 0.37	< 0.37	< 0.50	< 0.50	< 0.50		< 0.37	< 0.37
CHLOROBENZENE	UG/L		< 0.36	< 0.36	< 0.50	< 0.50	< 0.50		< 0.36	< 0.36
CHLORODIBROMOMETHANE	UG/L		< 1.9	< 1.9	< 0.32	< 0.50	< 0.32		< 1.9	< 1.9
CHLOROETHANE	UG/L		0.94 J	1.1	0.82 J	0.81 J	0.89 J		< 0.44	< 0.44
CHLOROFORM	UG/L		< 0.69	< 0.69	< 2.5	< 2.5	< 2.5		< 0.69	< 0.69
CHLOROMETHANE	UG/L		< 0.39	< 0.39	< 0.50	< 0.50	< 0.50		< 0.39	< 0.39
CIS-1,2-DICHLOROETHENE	UG/L		28.8	25.3	24.0	20.7	23.8		19	14.9
CIS-1,3-DICHLOROPROPENE	UG/L		< 0.29	< 0.29	< 0.15	< 0.50	< 0.15		< 0.29	< 0.29
ETHYLBENZENE	UG/L		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
METHYLENE CHLORIDE	UG/L		0.82 J	< 0.36	< 0.23	< 0.23	< 0.23		< 0.36	< 0.36
STYRENE	UG/L		< 0.35	< 0.35	< 0.15	< 0.50	< 0.15		< 0.35	< 0.35
TETRACHLOROETHENE	UG/L		0.66 J	0.60 J	0.70 J	0.69 J	0.69 J		0.48 J	0.49 J
TOLUENE	UG/L		< 0.44	< 0.44	< 0.50	< 0.50	< 0.50		< 0.44	< 0.44
TRANS-1,2-DICHLOROETHENE	UG/L		< 0.37	< 0.37	< 0.24	< 0.26	< 0.24		< 0.37	< 0.37
TRANS-1,3-DICHLOROPROPENE	UG/L		< 0.30	< 0.30	< 0.23	< 0.23	< 0.23		< 0.30	< 0.30
TRICHLOROETHENE	UG/L		15.7	15.2	15.4	13.9	15.9		10.3	9.9
VINYL CHLORIDE	UG/L	0.046	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	0.050	< 0.18	< 0.18
XYLENE, TOTAL	UG/L		< 1.3	< 1.3	< 1.5	< 1.5	< 1.5		< 1.3	< 1.3

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Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-402XXD 3/26/2014 4093883004	RM-402XXD 6/27/2014 4098976005	RM-402XXD LL 10/22/2013 388545
1,1,1-TRICHLOROETHANE	UG/L	32.3	62.0	
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.25	< 0.25	
1,1,2-TRICHLOROETHANE	UG/L	< 0.16	< 0.16	
1,1-DICHLOROETHANE	UG/L	16.4	30.5	
1,1-DICHLOROETHENE	UG/L	3.4	4.3	
1,2-DICHLOROETHANE	UG/L	< 0.17	< 0.17	
1,2-DICHLOROPROPANE	UG/L	< 0.23	< 0.23	
2-BUTANONE	UG/L	< 3.0	< 3.0	
2-HEXANONE	UG/L	< 1.1	< 1.1	
4-METHYL-2-PENTANONE	UG/L	< 2.1	< 2.1	
ACETONE	UG/L	< 3.0	< 3.0	
BENZENE	UG/L	< 0.50	< 0.50	
BROMODICHLOROMETHANE	UG/L	< 0.50	< 0.50	
BROMOFORM	UG/L	< 0.50	< 0.50	
BROMOMETHANE	UG/L	< 2.4	< 2.4	
CARBON DISULFIDE	UG/L	< 0.51	< 0.61	
CARBON TETRACHLORIDE	UG/L	< 0.50	< 0.50	
CHLOROBENZENE	UG/L	< 0.50	< 0.50	
CHLORODIBROMOMETHANE	UG/L	< 0.32	< 0.50	
CHLOROETHANE	UG/L	< 0.37	< 0.37	
CHLOROFORM	UG/L	< 2.5	< 2.5	
CHLOROMETHANE	UG/L	< 0.50	< 0.50	
CIS-1,2-DICHLOROETHENE	UG/L	8.0	18.6	
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.15	< 0.50	
ETHYLBENZENE	UG/L	< 0.50	< 0.50	
METHYLENE CHLORIDE	UG/L	< 0.23	< 0.23	
STYRENE	UG/L	< 0.15	< 0.50	
TETRACHLOROETHENE	UG/L	< 0.50	< 0.50	
TOLUENE	UG/L	< 0.50	< 0.50	
TRANS-1,2-DICHLOROETHENE	UG/L	< 0.24	< 0.26	
TRANS-1,3-DICHLOROPROPENE	UG/L	< 0.23	< 0.23	
TRICHLOROETHENE	UG/L	7.3	13.1	
VINYL CHLORIDE	UG/L	< 0.18	< 0.18	0.031 J
XYLENE, TOTAL	UG/L	< 1.5	< 1.5	

NOTES:

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	EW-07D 10/23/2013 4087377007	EW-07D 1/19/2014 4091236001	EW-07D 3/26/2014 4093883007	EW-07D 6/27/2014 4098976006	EW-07D DUP 1/19/2014 4091236003	OW-101A 10/28/2013 4087679001	OW-101A 1/13/2014 4090999001	OW-101A 4/1/2014 4094096002	OW-101A 6/28/2014 4098953001	OW-103A 10/14/2013 4086965013
ALKALINITY AS CaCO ₃ , TOTAL	MG/L	397	365	358	356	368	473	527	452	537	340
CARBON DIOXIDE, FIELD	MG/L	24	25	18	25		35	38	30	35	
CHLORIDE	MG/L	19.8 u	20.3 B	21.6	22.5	20.4 B	11.2 u	9.5 u	8.2	9.5	24.6
COLOR, FIELD		NONE	NONE	NONE	NONE		LT BROWN	NONE	NONE	NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	772	793	801	785		1033	1093	1085	1031	695
DEHALOBACTER	CELLS/BD										
DEHALOCOCCOIDES	CELLS/BD										
DEPTH TO WATER	FEET	33.37	35.79	36.92	31.27		39.07	39.20	38.97	33.04	44.01
DISSOLVED OXYGEN, FIELD	MG/L	5.62	4.06	7.40	3.69		5.37	3.74	4.21	2.24	4.15
EH, FIELD	MV	295	202	162	247		83	243	176	241	233
ETHANE	UG/L	< 0.36	< 0.36	< 0.58	< 0.58	< 0.36	< 0.36	< 0.36	< 0.58	< 0.58	
ETHENE	UG/L	< 0.30	< 0.30	< 0.52	< 0.52	< 0.30	< 0.30	< 0.30	< 0.52	< 0.52	
IRON, FERROUS, FIELD	MG/L	0	0	0	0		0	0	0	0	
IRON, TOTAL	UG/L	232 J	< 36.2	< 36.2	5.9 JBu	< 36.2	405	75.3 Ju	204 J	41.8 JBu	981
MANGANESE, FIELD	MG/L	0	0	0	0		0	0	0	0	
MANGANESE, TOTAL	UG/L	3.2 u	0.78 Ju	1.2	0.49 J	0.91 Ju	270	42.8	55.7	17.2	27000
METHANE	UG/L	< 0.64	< 0.64	< 1.4	< 1.4	< 0.64	3.8	< 0.64	< 1.4	< 1.4	
NITROGEN, NITRATE + NITRITE	MG/L	10.3	9.6	9.0	8.6	9.5	2	1.8	1.4	1.8	7.7
ODOR, FIELD		NONE	NONE	NONE	NONE		NONE	NONE	NONE	NONE	NONE
PH, FIELD	SU	7.45	7.31	7.65	7.21		7.05	6.85	7.20	7.08	7.39
SULFATE, TOTAL	MG/L	41.2 u	41.5	43.9	46.4	41.6	128	154	175	151	24.7 u
SULFIDE, FIELD	MG/L	0	0	0	0		0	0	0	0	
TEMPERATURE	DEG C	9.7	2.9	3.3	11.7		6.1	3.7	4.5	10.7	9.5
TOTAL INORGANIC CARBON	MG/L	93	89.3	101	96.1	95.1	141	153	143	142	
TOTAL ORGANIC CARBON AS NPOC	MG/L	0.61 u	0.90 u	0.76	0.68	1.3	2.1 u	2.7	2.9	3.0	
TOTAL ORGANIC CARBON, DIS	MG/L	0.97 2qu	0.85 u	1.3 1qu	0.84 2qu	1.3	2.2 1qu	2.7	3.6 1q	3.5 2qu	
TURBIDITY, FIELD NTU	NTU	3	6	0	7		48	12	27	14	63
WATER ELEVATION	FEET	803.83	801.41	800.28	805.93		805.64	805.51	805.74	811.67	795.24

NOTES:

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	OW-104F 10/14/2013 4086965014	OW-104F DUP 10/14/2013 4086965017	RM-004D 10/15/2013 4086965003	RM-005D 10/17/2013 4086957002	RM-005D 1/17/2014 4091237001	RM-005D 3/28/2014 4094098003	RM-005D 6/26/2014 4098963002	RM-005D DUP 3/28/2014 4094098006	RM-007D 9/3/2013 001KI-001
ALKALINITY AS CaCO ₃ , TOTAL	MG/L	307	300	328	384	311 M0j	353	329	361	
CARBON DIOXIDE, FIELD	MG/L				20	23	14	22		
CHLORIDE	MG/L	6.9 u	6.9 u	18.2 u	20.8 u	18.9	18.9	20.5 M0j	19.7	
COLOR, FIELD		NONE		NONE	NONE	NONE	NONE	NONE		
CONDUCTANCE, SPECIFIC	UMHOS/CM	550		645	759	777	731	740		
DEHALOBACTER	CELLS/BD									< 150
DEHALOCOCCOIDES	CELLS/BD									< 25
DEPTH TO WATER	FEET	37.01		56.72	41.88	42.66	42.67	39.72		
DISSOLVED OXYGEN, FIELD	MG/L	0.37		2.43	2.48	2.53	1.92	1.77		
EH, FIELD	MV	105		148	100	191	137	193		
ETHANE	UG/L				< 0.36	< 0.36	< 0.58	< 0.58	< 0.58	
ETHENE	UG/L				< 0.30	< 0.30	< 0.52	< 0.52	< 0.52	
IRON, FERROUS, FIELD	MG/L				0	0	0	0		
IRON, TOTAL	UG/L	591	594	1670	< 36.2	< 36.2	< 36.2	10.6 JBu	< 36.2	
MANGANESE, FIELD	MG/L				0	0	0	0		
MANGANESE, TOTAL	UG/L	19.0	19.1	654	3.6 u	1.7 u	4.4	0.64 J	3.2	
METHANE	UG/L				< 0.64	< 0.64	< 1.4	< 1.4	< 1.4	
NITROGEN, NITRATE + NITRITE	MG/L	1.3	1.3	2.3	7.9	7.5 M0j	7.4	7.2	7.5	
ODOR, FIELD		NONE		NONE	NONE	NONE	NONE	NONE		
PH, FIELD	SU	7.57		7.49	7.26	7.36	7.09	7.05		
SULFATE, TOTAL	MG/L	20.0 u	19.9 u	30.5 u	35.6 M0uj	33.9	33.9	35.6	35.2	
SULFIDE, FIELD	MG/L				0	0	0	0		
TEMPERATURE	DEG C	9.6		10.0	9.7	3.7	7.0	10.0		
TOTAL INORGANIC CARBON	MG/L				93.2	94.2	88.2	87.6	89.5	
TOTAL ORGANIC CARBON AS NPOC	MG/L				0.83 u	1.1	0.93	0.92	0.96	
TOTAL ORGANIC CARBON, DIS	MG/L				0.83 u	1.0 u	1.0 2qu	1.0 1qu	1.0 2qu	
TURBIDITY, FIELD NTU	NTU	18		8	0	0	0	0		
WATER ELEVATION	FEET	791.73		802.37	801.2	800.42	800.41	803.36		

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-007D 10/28/2013 4087679002	RM-007D 1/16/2014 4091195001	RM-007D 4/2/2014 4094239003	RM-007D 6/28/2014 4098953002	RM-007XD 9/3/2013 001KI-002	RM-007XD 10/30/2013 4087679005	RM-007XD 1/16/2014 4091195002	RM-007XD 4/3/2014 4094239004	RM-007XD 6/28/2014 4098953003	RM-007XXD 10/30/2013 4087679006
ALKALINITY AS CaCO ₃ , TOTAL	MG/L	447	543	488	501		420 j	434 M0j	423	440 M0j	336
CARBON DIOXIDE, FIELD	MG/L	35	30	30	33		28	30	30	28	32
CHLORIDE	MG/L	15.5 u	12.5 Bu	11.0	12.6		10.5 u	11.2 Bu	9.1	9.5	5.3 u
COLOR, FIELD		NONE	NONE	NONE	NONE		NONE	NONE	NONE	NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	1031	1104	1091	929		852	863	867	808	571
DEHALOBACTER	CELLS/BD					< 150					
DEHALOCOCCOIDES	CELLS/BD					< 25					
DEPTH TO WATER	FEET	37.99	38.21	37.93	31.83		38.47	38.67	38.63	32.32	39.55
DISSOLVED OXYGEN, FIELD	MG/L	1.73	2.14	1.13	4.17		3.81	2.67	2.30	2.91	0.22
EH, FIELD	MV	132	147	180	215		167	183	204	274	-194
ETHANE	UG/L	< 0.36	< 0.36	< 0.58	1.9 J		< 0.36	< 0.36	< 0.58	< 0.58	< 0.36
ETHENE	UG/L	< 0.30	< 0.30	< 0.52	1.2 J		< 0.30	< 0.30	< 0.52	< 0.52	< 0.30
IRON, FERROUS, FIELD	MG/L	0	0	0	0		0	0	0	0	0
IRON, TOTAL	UG/L	70.0 J	79.8 Ju	96.3 J	204 J		115 J	59.1 Ju	< 36.2	11.0 JBu	94.4 J
MANGANESE, FIELD	MG/L	0	0	0	0		0	0	0	0	0
MANGANESE, TOTAL	UG/L	6.8	9.8	6.2	9.9		13.6	1.7 u	2.3	1.7	80.7
METHANE	UG/L	< 0.64	< 0.64	< 1.4	19.9		< 0.64	< 0.64	< 1.4	< 1.4	< 0.64
NITROGEN, NITRATE + NITRITE	MG/L	3.1	1.7	1.4	2.2		1.4 M0j	1.8	1.9	1.5 M0j	0.4
ODOR, FIELD		NONE	NONE	NONE	NONE		NONE	NONE	NONE	NONE	NONE
PH, FIELD	SU	7.06	6.99	6.77	7.02		7.09	7.17	7.21	7.11	7.43
SULFATE, TOTAL	MG/L	102	146	164	89.2		67.7 u	67.7	65.4	67.5	15.4 u
SULFIDE, FIELD	MG/L	0	0	0	0		0	0	0	0	0
TEMPERATURE	DEG C	8.1	6.1	7.4	10.3		8.2	7.4	8.6	10.4	8.2
TOTAL INORGANIC CARBON	MG/L	145	157	148	140		113	119	117	114	80.5
TOTAL ORGANIC CARBON AS NPOC	MG/L	2 u	2.4	2.5	2.1		1 u	1.2	1.2	1.0	0.54 u
TOTAL ORGANIC CARBON, DIS	MG/L	2.4 1qu	2.8 1q	2.9 2qu	3.2 1qu		0.96 u	1.2	1.4 2qu	1.2 2qu	0.46 Ju
TURBIDITY, FIELD NTU	NTU	7	6	8	7		0	0	0	0	0
WATER ELEVATION	FEET	805.71	805.49	805.77	811.87		805.72	805.52	805.56	811.87	805.13

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-007XXD 1/16/2014 4091195003	RM-007XXD 4/3/2014 4094239005	RM-007XXD 6/28/2014 4098953004	RM-007XXD DUP 10/30/2013 4087679008	RM-007XXD DUP 1/16/2014 4091195005	RM-007XXD DUP 4/3/2014 4094239006	RM-007XXD DUP 6/28/2014 4098953005	RM-008D 10/22/2013 4087377001
ALKALINITY AS CaCO ₃ , TOTAL	MG/L	341	321	329	320	328	331	321	398
CARBON DIOXIDE, FIELD	MG/L	24	22	37					20
CHLORIDE	MG/L	5.0 Bu	5.6	4.7	5.3 u	5.0 Bu	5.6	4.7	31.6
COLOR, FIELD		NONE	NONE	NONE					NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	566	584	562					903
DEHALOBACTER	CELLS/BD								
DEHALOCOCCOIDES	CELLS/BD								
DEPTH TO WATER	FEET	39.67	39.44	34.84					38.93
DISSOLVED OXYGEN, FIELD	MG/L	0.28	0.17	0.16					6.43
EH, FIELD	MV	-141	-72	136					184
ETHANE	UG/L	< 0.36	< 0.58	< 0.58	< 0.36	< 0.36	< 0.58	< 0.58	< 0.36
ETHENE	UG/L	< 0.30	< 0.52	< 0.52	< 0.30	< 0.30	< 0.52	< 0.52	< 0.30
IRON, FERROUS, FIELD	MG/L	0	0	0					0
IRON, TOTAL	UG/L	83.7 Ju	134 J	83.2 JB	95.4 J	103 Ju	141 J	88.0 JB	59.9 J
MANGANESE, FIELD	MG/L	0	0	0					0
MANGANESE, TOTAL	UG/L	76.6	99.3	82.1	82.1	78.6	99.3	83.0	1.6 u
METHANE	UG/L	2.7 J	< 1.4	< 1.4	< 0.64	4.4	< 1.4	< 1.4	< 0.64
NITROGEN, NITRATE + NITRITE	MG/L	0.39	0.67	0.41	0.4	0.37	0.68	0.40	9.2 M0j
ODOR, FIELD		NONE	NONE	NONE					NONE
PH, FIELD	SU	7.58	7.59	7.29					7.11
SULFATE, TOTAL	MG/L	15.2 u	16.6	16.2	15.4 u	15.2 u	16.6	16.2	62 u
SULFIDE, FIELD	MG/L	0	0	0					0
TEMPERATURE	DEG C	5.9	8.7	9.1					7.3
TOTAL INORGANIC CARBON	MG/L	81.0	79.9	80.6	80.2	84.3	81.1	81.4	109
TOTAL ORGANIC CARBON AS NPOC	MG/L	0.60 u	0.64	0.48 J	0.52 u	0.59 u	0.63	0.45 J	1 u
TOTAL ORGANIC CARBON, DIS	MG/L	0.84 1qu	0.71 2qu	0.54 2qu	0.43 Ju	0.64 1qu	0.82 2qu	0.49 J2qu	1.1 2qu
TURBIDITY, FIELD NTU	NTU	0	0	0					1
WATER ELEVATION	FEET	805.01	805.24	809.84					806.55

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-008D 1/10/2014 4090998003	RM-008D 3/26/2014 4093883006	RM-008D 6/27/2014 4098976003	RM-010D 10/11/2013 4086965012	RM-101D 10/15/2013 4086965001	RM-101D 3/18/2014 4093768002	RM-102D 10/28/2013 4087679004	RM-102D 1/9/2014 4090998005	RM-102D 3/25/2014 4093883002	RM-102D 6/26/2014 4098963006
ALKALINITY AS CaCO ₃ , TOTAL	MG/L	384	390	357	289	316 M0j	327	277	274	263	207
CARBON DIOXIDE, FIELD	MG/L	20	20	25				15	14	15	14
CHLORIDE	MG/L	35.5	33.2	31.6	25.1	12.5 u	12.3	4.2 u	4.3 u	5.6	11.4
COLOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	894	888	793	617	646	636	481	500	519	526
DEHALOBACTER	CELLS/BD										
DEHALOCOCCOIDES	CELLS/BD										
DEPTH TO WATER	FEET	39.32	39.79	31.77	53.89	14.52	13.15	38.26	38.30	40.59	19.95
DISSOLVED OXYGEN, FIELD	MG/L	6.34	5.80	3.73	5.59	2.99	2.79	7.13	5.99	6.71	5.95
ETH, FIELD	MV	122	126	155	200	160	113	303	136	235	207
ETHANE	UG/L	< 0.36	< 0.58	< 0.58				< 0.36	< 0.36	< 0.58	< 0.58
ETHENE	UG/L	< 0.30	< 0.52	< 0.52				< 0.30	< 0.30	< 0.52	< 0.52
IRON, FERROUS, FIELD	MG/L	0	0	0				0	0	0	0
IRON, TOTAL	UG/L	59.1 Ju	< 36.2	80.2 J	4440	< 36.2	< 36.2	37.8 J	49.9 Ju	42.5 J	49.8 JBu
MANGANESE, FIELD	MG/L	0	0	0				0	0	0	0
MANGANESE, TOTAL	UG/L	1.5 u	0.78 J	2.0	56.4	0.46 Ju	< 0.32	1.1 u	1.9 u	1.4	1.4
METHANE	UG/L	< 0.64	< 1.4	< 1.4				< 0.64	< 0.64	< 1.4	< 1.4
NITROGEN, NITRATE + NITRITE	MG/L	13.2	8.8	14.2	6.1	4.1 M0j	3.9	4.4	6.0	7.4	13.3
ODOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
PH, FIELD	SU	7.34	7.39	7.23	7.42	7.47	7.01	7.56	7.94	7.64	7.12
SULFATE, TOTAL	MG/L	47.4	57.9	37.6	23.7 u	29.4 M0ju	25.4	3.0 Ju	3.8 Ju	3.7 J	7.0
SULFIDE, FIELD	MG/L	0	0	0				0	0	0	0
TEMPERATURE	DEG C	4.5	5.2	10.6	10.1	9.4	8.7	7.6	5.1	6.1	9.9
TOTAL INORGANIC CARBON	MG/L	105	114	99.9				68.3	69.4	72.4	52.1
TOTAL ORGANIC CARBON AS NPOC	MG/L	1.1	0.99	3.1				1.6 u	1.5	1.6	1.9
TOTAL ORGANIC CARBON, DIS	MG/L	1.1	1.4 2qu	2.7 u				1.9 1qu	2.0 1q	2.3 1qu	2.0 1qu
TURBIDITY, FIELD NTU	NTU	0	0	0	53	0	0	8	8	8	6
WATER ELEVATION	FEET	806.16	805.69	813.71	795.68	804.73	806.1	835.86	835.82	833.53	854.17

NOTES:

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-103D 10/14/2013 4086965016	RM-202D 10/15/2013 4086965004	RM-203D 10/14/2013 4086965015	RM-203D 3/18/2014 4093768003	RM-204D 10/11/2013 4086957001	RM-204D 1/14/2014 4091194002	RM-204D 3/28/2014 4094098005	RM-204D 6/26/2014 4098963005	RM-208D 10/17/2013 4086957005	RM-208D 1/19/2014 4091236002
ALKALINITY AS CaCO ₃ , TOTAL	MG/L	366	304	344	330	363	370	351	335	349	349
CARBON DIOXIDE, FIELD	MG/L					20	20	25	20	18	25
CHLORIDE	MG/L	18.9 u	10.3 u	20.6 u	21.1	12.8 u	12.9 B	12.7	13.8	17.1 u	17.6 B
COLOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	740	549	701	720	672	694	700	665	723	720
DEHALOBACTER	CELLS/BD										
DEHALOCOCCOIDES	CELLS/BD										
DEPTH TO WATER	FEET	54.99	10.19	32.78	32.60	28.83	29.61	29.91	26.55	38.29	39.12
DISSOLVED OXYGEN, FIELD	MG/L	3.83	0.25	4.42	5.38	1.11	0.87	0.47	0.57	1.87	1.76
EH, FIELD	MV	179	-177	101	110	253	101	241	221	182	97
ETHANE	UG/L					< 0.36	< 0.36	< 0.58	< 0.58	< 0.36	< 0.36
ETHENE	UG/L					< 0.30	< 0.30	< 0.52	< 0.52	< 0.30	< 0.30
IRON, FERROUS, FIELD	MG/L					0	0	0	0	0	0
IRON, TOTAL	UG/L	47.3 J	1440	82.2 J	192 J	201 J	220 Ju	85.5 J	116 J	152 J	98.2 Ju
MANGANESE, FIELD	MG/L					0	0	0	0	0	0
MANGANESE, TOTAL	UG/L	3.5 u	35.6	4.1 u	3.8	5.0 u	6.2	2.8	3.3	21.6	9.8
METHANE	UG/L					< 0.64	< 0.64	< 1.4	< 1.4	< 0.64	< 0.64
NITROGEN, NITRATE + NITRITE	MG/L	7.0	< 0.055	7.3	6.8	3.6	3.6	3.9	3.4	5.4	5.2
ODOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
PH, FIELD	SU	7.33	7.74	7.42	7.87	7.39	7.62	7.41	8.08	7.31	7.50
SULFATE, TOTAL	MG/L	34.8 u	26.4 M0ju	28.0 u	25.8	30.8 u	30.4	30.1	33.8	30.2 u	29.4
SULFIDE, FIELD	MG/L					0	0	0	0	0	0
TEMPERATURE	DEG C	9.9	10.5	9.7	3.2	11.2	5.5	6.0	10.6	9.7	3.7
TOTAL INORGANIC CARBON	MG/L					92.9	86.6	87.7	89.6	91.8	95.7
TOTAL ORGANIC CARBON AS NPOC	MG/L					0.59 u	0.77 u	0.80	0.67	0.67 u	0.81 u
TOTAL ORGANIC CARBON, DIS	MG/L					1.2 1qu	1.2 2q	1.5 1qu	0.82 1qu	0.67 u	0.84 1qu
TURBIDITY, FIELD NTU	NTU	0	12	7	8	7	7	7	8	0	0
WATER ELEVATION	FEET	801.14	803.39	791.1	791.28	799.65	798.87	798.57	801.93	801.62	800.79

NOTES:

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-208D 3/28/2014 4094098004	RM-208D 6/26/2014 4098963001	RM-208D DUP 10/17/2013 4086957006	RM-208D DUP 6/26/2014 4098963007	RM-208XD 10/16/2013 4086965007	RM-208XD 3/18/2014 4093768001	RM-208XD DUP 10/16/2013 4086965009	RM-209D 9/3/2013 001KI-004	RM-209D 10/23/2013 4087377005
ALKALINITY AS CaCO ₃ , TOTAL	MG/L	353	340	386	338	351	339	349		392
CARBON DIOXIDE, FIELD	MG/L	25	20							32
CHLORIDE	MG/L	16.6	18.5	17.2 u	18.8	8.1 u	8.6	8.1 u		17.2 u
COLOR, FIELD		NONE	NONE			NONE	NONE			NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	700	705			618	611			951
DEHALOBACTER	CELLS/BD								< 150	
DEHALOCOCCOIDES	CELLS/BD								< 25	
DEPTH TO WATER	FEET	39.24	35.73			31.49	32.25			47.62
DISSOLVED OXYGEN, FIELD	MG/L	1.41	1.55			0.30	0.22			1.79
EH, FIELD	MV	192	93			177	100			121
ETHANE	UG/L	< 0.58	< 0.58	< 0.36	< 0.58					< 0.36
ETHENE	UG/L	< 0.52	< 0.52	< 0.30	< 0.52					< 0.30
IRON, FERROUS, FIELD	MG/L	0	0							0
IRON, TOTAL	UG/L	< 36.2	< 4.4	95.2 J	7.2 JBu	< 36.2	< 36.2	< 36.2		193 J
MANGANESE, FIELD	MG/L	0	0							0
MANGANESE, TOTAL	UG/L	0.39 J	0.65 J	12.0	0.66 J	68.6	66.2	68.0		15.7
METHANE	UG/L	< 1.4	< 1.4	< 0.64	< 1.4					< 0.64
NITROGEN, NITRATE + NITRITE	MG/L	5.2	5.7 MOj	5.4	5.9	1.2	0.65	1.1		< 0.055
ODOR, FIELD		NONE	NONE			NONE	NONE			NONE
PH, FIELD	SU	7.31	7.33			7.42	7.78			7.24
SULFATE, TOTAL	MG/L	29.6	28.1	30.3 u	28.3	21.6 u	21.8	21.5 u		69 u
SULFIDE, FIELD	MG/L	0	0							0
TEMPERATURE	DEG C	7.1	9.9			8.9	7.4			8.3
TOTAL INORGANIC CARBON	MG/L	90.1	85.4	87.6	88.9					125
TOTAL ORGANIC CARBON AS NPOC	MG/L	0.80	0.75	0.59 u	0.71					1.1 u
TOTAL ORGANIC CARBON, DIS	MG/L	0.88 2qu	0.91 1qu	0.67 2qu	0.78 u					1.7 1qu
TURBIDITY, FIELD NTU	NTU	0	0			0	0			4
WATER ELEVATION	FEET	800.67	804.18			805.73	804.97			806.22

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-209D 1/14/2014 4091194001	RM-209D 4/1/2014 4094096001	RM-209D 6/29/2014 4098976010	RM-213D 10/15/2013 4086965002	RM-213XD 10/23/2013 4087377006	RM-213XD 1/13/2014 4090999002	RM-213XD 3/25/2014 4093883001	RM-213XD 6/27/2014 4098976002	RM-214D 10/22/2013 4087377004
ALKALINITY AS CaCO ₃ , TOTAL	MG/L	450	423	425	378	372	365	348	364	525
CARBON DIOXIDE, FIELD	MG/L	25	38	22		22	22	25	28	33
CHLORIDE	MG/L	15.5 B	15.1	16.4	40.4	30	36.0	26.4	37.4	5.9 u
COLOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	867	915	789	1048	933	990	870	983	1012
DEHALOBACTER	CELLS/BD									
DEHALOCOCCOIDES	CELLS/BD									
DEPTH TO WATER	FEET	47.92	47.97	41.41	34.93	36.37	36.76	37.15	30.52	47.35
DISSOLVED OXYGEN, FIELD	MG/L	1.81	2.61	3.64	5.35	4.59	3.51	3.25	3.45	0.61
EH, FIELD	MV	210	141	259	241	256	283	316	10	87
ETHANE	UG/L	< 0.36	< 0.58	< 0.58		< 0.36	< 0.36	< 0.58	< 0.58	< 0.36
ETHENE	UG/L	< 0.30	< 0.52	< 0.52		< 0.30	< 0.30	< 0.52	< 0.52	< 0.30
IRON, FERROUS, FIELD	MG/L	0	0	0		0	0	0	0	0
IRON, TOTAL	UG/L	256	134 J	175 J	53.9 J	< 36.2	< 36.2	< 36.2	10.9 JBu	< 36.2
MANGANESE, FIELD	MG/L	0	0	0		0	0	0	0	0
MANGANESE, TOTAL	UG/L	10.2	13.7	4.7	3.4 u	2 u	3.1	3.4	2.3	182
METHANE	UG/L	< 0.64	< 1.4	< 1.4		< 0.64	< 0.64	< 1.4	< 1.4	< 0.64
NITROGEN, NITRATE + NITRITE	MG/L	2.2	1.7	1.5	33.6	16.4	24.4	20.4	20.0	0.65
ODOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
PH, FIELD	SU	7.20	7.22	7.41	7.29	7.17	7.47	7.32	7.18	7.24
SULFATE, TOTAL	MG/L	63.7	62.8	57.7	53.1 u	59.2 u	52.8	49.1	58.6	62.1 u
SULFIDE, FIELD	MG/L	0	0	0		0	0	0	0	0
TEMPERATURE	DEG C	5.4	4.5	12.1	9.2	8.7	5.7	6.7	8.8	9.7
TOTAL INORGANIC CARBON	MG/L	120	139	109		96.3	104	100	107	160
TOTAL ORGANIC CARBON AS NPOC	MG/L	1.4	1.3	1.3		0.91 u	1.2	1.0	1.1	1.9 u
TOTAL ORGANIC CARBON, DIS	MG/L	2.0 1q	2.5 1qu	2.0 1qu		1.2 2qu	1.3 1q	1.2 2qu	1.0 u	2.2 2qu
TURBIDITY, FIELD NTU	NTU	8	6	6	6	6	3	5	6	6
WATER ELEVATION	FEET	805.92	805.87	812.43	806.3	806.33	805.94	805.55	812.18	806.13

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-214D 1/13/2014 4090999003	RM-214D 3/25/2014 4093883003	RM-214D 6/27/2014 4098976001	RM-303D 9/3/2013 001KI-005	RM-303D 10/24/2013 4087377008	RM-303D 1/15/2014 4091194004	RM-303D 4/1/2014 4094096003	RM-303D 6/29/2014 4098976009	RM-304D 10/16/2013 4086965005
ALKALINITY AS CaCO ₃ , TOTAL	MG/L	628	569	617		494	578	582	476	371
CARBON DIOXIDE, FIELD	MG/L	30	28	28		27	28	27	30	
CHLORIDE	MG/L	5.2 u	5.2	5.7		18.9 u	18.8 B	18.3	20.1	4.3 u
COLOR, FIELD		NONE	NONE	NONE		NONE	NONE	NONE	NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	1034	1047	1062		987	987	1035	899	638
DEHALOBACTER	CELLS/BD				< 150					
DEHALOCOCCOIDES	CELLS/BD				< 25					
DEPTH TO WATER	FEET	47.84	48.44	41.86		58.45	58.82	58.77	47.58	31.63
DISSOLVED OXYGEN, FIELD	MG/L	0.70	0.37	0.95		2.57	0.97	3.34	0.40	7.41
EH, FIELD	MV	96	39	69		232	226	153	118	243
ETHANE	UG/L	< 0.36	< 0.58	< 0.58		< 0.36	< 0.36	< 0.58	0.80 J	
ETHENE	UG/L	< 0.30	< 0.52	< 0.52		< 0.30	< 0.30	< 0.52	< 0.52	
IRON, FERROUS, FIELD	MG/L	0	0	0		0	0	0	0	
IRON, TOTAL	UG/L	< 36.2	< 36.2	35.0 JBu		760	231 J	290	63.5 JB	123 J
MANGANESE, FIELD	MG/L	0	0	0		0	0	0	0	
MANGANESE, TOTAL	UG/L	200	239	259		39.1	13.5	17.8	233	10.6
METHANE	UG/L	< 0.64	< 1.4	< 1.4		< 0.64	< 0.64	< 1.4	85.1	
NITROGEN, NITRATE + NITRITE	MG/L	0.66	0.51	1.0		2.5	2.1	1.8	4.3	2.7
ODOR, FIELD		NONE	NONE	NONE		NONE	NONE	NONE	NONE	NONE
PH, FIELD	SU	7.42	7.12	6.91		6.87	7.06	7.26	6.68	7.26
SULFATE, TOTAL	MG/L	60.4	60.2	59.2		33.4 u	33.6	33.5	61.1	6.7 u
SULFIDE, FIELD	MG/L	0	0	0		0	0	0	0	
TEMPERATURE	DEG C	6.8	5.6	10.7		8.6	5.0	4.5	10.2	9.4
TOTAL INORGANIC CARBON	MG/L	175	163	171		162	157	170	132	
TOTAL ORGANIC CARBON AS NPOC	MG/L	2.1	2.1	1.8		2.5 u	2.6	2.5	7.8	
TOTAL ORGANIC CARBON, DIS	MG/L	2.6 1q	3.1 1q	2.2 2qu		2.7 2qu	3.0 2q	3.4 1q	8.7 2q	
TURBIDITY, FIELD NTU	NTU	6	8	7		88	64	42	7	13
WATER ELEVATION	FEET	805.64	805.04	811.62		806.6	806.23	806.28	817.47	843.31

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-305D 10/16/2013 4086965008	RM-306D 10/30/2013 4087679007	RM-306D 1/15/2014 4091194003	RM-306D 4/2/2014 4094239001	RM-306D 6/29/2014 4098976011	RM-307D 9/3/2013 001KI-003	RM-307D 10/28/2013 4087679003	RM-307D 1/16/2014 4091195004	RM-307D 4/2/2014 4094239002
ALKALINITY AS CaCO ₃ , TOTAL	MG/L	341	381	385	375	364		417	429	364
CARBON DIOXIDE, FIELD	MG/L		30	18	25	30		20	20	20
CHLORIDE	MG/L	15.8 u	3.3 Ju	3.3 JBu	2.9 J	2.8 J		6.1 u	4.4 Bu	5.3
COLOR, FIELD		NONE	NONE	NONE	NONE	NONE		NONE	NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	728	666	664	640	582		829	790	794
DEHALOBACTER	CELLS/BD						< 150			
DEHALOCOCCOIDES	CELLS/BD						< 25			
DEPTH TO WATER	FEET	57.32	48.37	48.51	48.64	37.91		48.21	48.41	48.21
DISSOLVED OXYGEN, FIELD	MG/L	6.78	6.91	5.40	5.74	5.40		5.40	4.76	7.27
EH, FIELD	MV	179	179	182	293	316		253	271	233
ETHANE	UG/L		< 0.36	< 0.36	< 0.58	< 0.58		< 0.36	< 0.36	< 0.58
ETHENE	UG/L		< 0.30	< 0.30	< 0.52	< 0.52		< 0.30	< 0.30	< 0.52
IRON, FERROUS, FIELD	MG/L		0	0	0	0		0	0	0
IRON, TOTAL	UG/L	340	166 J	158 Ju	93.0 J	144 J		< 36.2	< 36.2	< 36.2
MANGANESE, FIELD	MG/L		0	0	0	0		0	0	0
MANGANESE, TOTAL	UG/L	13.1	2.6 u	2.9	1.5	2.3		1.6 u	2.1 u	0.90 J
METHANE	UG/L		< 0.64	< 0.64	< 1.4	< 1.4		< 0.64	< 0.64	< 1.4
NITROGEN, NITRATE + NITRITE	MG/L	7.1	2.6	2.3	2.6	2.5		2	1.7	2.0
ODOR, FIELD		NONE	NONE	NONE	NONE	NONE		NONE	NONE	NONE
PH, FIELD	SU	7.60	7.37	7.37	7.17	7.25		7.17	7.41	7.19
SULFATE, TOTAL	MG/L	60.4 u	12.4 u	12.7 u	12.5	12.0		76.1	53.2	101
SULFIDE, FIELD	MG/L		0	0	0	0		0	0	0
TEMPERATURE	DEG C	9.0	8.8	5.2	7.4	9.9		7.5	3.4	7.6
TOTAL INORGANIC CARBON	MG/L		97.2	94.0	92.2	93.7		114	115	96.3
TOTAL ORGANIC CARBON AS NPOC	MG/L		1.1 u	1.2	1.3	1.1		2.3 u	2.3	3.3
TOTAL ORGANIC CARBON, DIS	MG/L		1.3 1qu	1.3 2q	1.4 2qu	2.0 1qu		2.7 1qu	2.6 1q	4.2 1q
TURBIDITY, FIELD NTU	NTU	81	7	8	7	8		6	8	4
WATER ELEVATION	FEET	810.63	807.85	807.71	807.58	818.31		805.73	805.53	805.73

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-307D 6/29/2014 4098976012	RM-308D 10/16/2013 4086965006	RM-401XD 10/17/2013 4086957003	RM-401XD 1/17/2014 4091237002	RM-401XD 3/28/2014 4094098002	RM-401XD 6/26/2014 4098963004	RM-401XXD 10/17/2013 4086957004	RM-401XXD 1/17/2014 4091237003	RM-401XXD 3/28/2014 4094098001
ALKALINITY AS CaCO ₃ , TOTAL	MG/L	391	349	322	335	303	292	320	303	308
CARBON DIOXIDE, FIELD	MG/L	35		18	14	18	20	23	16	20
CHLORIDE	MG/L	4.2	3.0 Ju	28.1	27.9	37.1	40.7	35.7	35.4	35.6
COLOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	746	592	743	724	741	729	737	745	755
DEHALOBACTER	CELLS/BD									
DEHALOCOCCOIDES	CELLS/BD									
DEPTH TO WATER	FEET	42.02	47.10	31.17	31.99	32.07	28.65	26.87	27.57	27.27
DISSOLVED OXYGEN, FIELD	MG/L	4.35	5.20	3.62	4.37	3.49	3.50	3.64	4.87	4.45
EH, FIELD	MV	297	233	169	315	146	295	193	284	121
ETHANE	UG/L	< 0.58		< 0.36	< 0.36	< 0.58	< 0.58	< 0.36	< 0.36	< 0.58
ETHENE	UG/L	< 0.52		< 0.30	< 0.30	< 0.52	< 0.52	< 0.30	< 0.30	< 0.52
IRON, FERROUS, FIELD	MG/L	0		0	0	0	0	0	0	0
IRON, TOTAL	UG/L	< 4.4	< 36.2	< 36.2	< 36.2	< 36.2	18.4 JBu	< 36.2	< 36.2	< 36.2
MANGANESE, FIELD	MG/L	0		0	0	0	0	0	0	0
MANGANESE, TOTAL	UG/L	0.20 J	1.2 u	2.1 u	1.3 u	1.6	1.9	1.7 u	1.0 u	1.1
METHANE	UG/L	< 1.4		< 0.64	< 0.64	< 1.4	< 1.4	< 0.64	< 0.64	< 1.4
NITROGEN, NITRATE + NITRITE	MG/L	2.3	0.70	9.5	9.5 M0j	13.1	11.7	10.3	11.9	15.0
ODOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
PH, FIELD	SU	7.11	7.31	7.34	8.57	6.89	7.14	7.35	7.55	6.94
SULFATE, TOTAL	MG/L	56.1	19.0 u	28.5 u	26.8	24.4	27.2	21.8 u	22.4	24.2
SULFIDE, FIELD	MG/L	0		0	0	0	0	0	0	0
TEMPERATURE	DEG C	9.7	8.8	8.8	3.6	6.1	9.4	9.1	3.1	6.2
TOTAL INORGANIC CARBON	MG/L	104		83.4	90.9	78.8	76.5	80.3	82.5	82.2
TOTAL ORGANIC CARBON AS NPOC	MG/L	2.3		0.53 u	0.73 u	0.63	0.46 J	0.42 Ju	0.62 u	0.66
TOTAL ORGANIC CARBON, DIS	MG/L	3.3 1qu		0.76 2qu	0.88 1qu	0.77 2qu	0.71 1qu	0.48 J2qu	0.74 1qu	0.72 2qu
TURBIDITY, FIELD, NTU	NTU	6	7	6	7	8	5	7	7	5
WATER ELEVATION	FEET	811.92	808.86	802.43	801.61	801.53	804.95	805.98	805.28	805.58

NOTES:

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Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-401XXD 6/26/2014 4098963003	RM-402XD 9/3/2013 001KI-006	RM-402XD 10/22/2013 4087377002	RM-402XD 1/10/2014 4090998002	RM-402XD 3/26/2014 4093883005	RM-402XD 6/27/2014 4098976004	RM-402XD DUP 3/26/2014 4093883008	RM-402XXD 10/22/2013 4087377003	RM-402XXD 1/10/2014 4090998001
ALKALINITY AS CaCO ₃ , TOTAL	MG/L	290		389	370	389	373	380	354	350
CARBON DIOXIDE, FIELD	MG/L	26		42	35	25	35		32	18
CHLORIDE	MG/L	37.9		16.8 u	17.0	17.2	19.1	17.2	32.9	33.7
COLOR, FIELD		NONE		NONE	NONE	NONE	NONE		NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	724		1214	1196	1220	1099		818	788
DEHALOBACTER	CELLS/BD		507							
DEHALOCOCCOIDES	CELLS/BD		< 25							
DEPTH TO WATER	FEET	23.10		35.97	36.12	36.45	29.84		36.15	36.46
DISSOLVED OXYGEN, FIELD	MG/L	3.68		0.52	0.67	0.90	1.67		3.17	3.54
EH, FIELD	MV	281		135	37	88	278		188	146
ETHANE	UG/L	< 0.58		< 0.36	< 0.36	< 0.58	< 0.58	< 0.58	< 0.36	< 0.36
ETHENE	UG/L	< 0.52		< 0.30	< 0.30	< 0.52	< 0.52	< 0.52	< 0.30	< 0.30
IRON, FERROUS, FIELD	MG/L	0		0	0	0	0		0	0
IRON, TOTAL	UG/L	13.2 JBu		117 J	< 36.2	< 36.2	21.7 JBu	< 36.2	< 36.2	< 36.2
MANGANESE, FIELD	MG/L	0		0	0	0	0		0	0
MANGANESE, TOTAL	UG/L	0.77 J		218	176	124	17.8	125	2.8 u	0.82 Ju
METHANE	UG/L	< 1.4		< 0.64	< 0.64	< 1.4	< 1.4	< 1.4	< 0.64	< 0.64
NITROGEN, NITRATE + NITRITE	MG/L	10.9		3.6	4.1	4.4	7.3	4.3	13.9	11.4
ODOR, FIELD		NONE		NONE	NONE	NONE	NONE		NONE	NONE
PH, FIELD	SU	7.28		7.11	8.03	7.28	7.19		7.19	7.02
SULFATE, TOTAL	MG/L	25.1		158	312	319	232	322	26.7 u	25.4
SULFIDE, FIELD	MG/L	0		0	0	0	0		0	0
TEMPERATURE	DEG C	9.5		8.1	5.3	6.2	9.8		7.0	5.4
TOTAL INORGANIC CARBON	MG/L	78.2		111	107	116	118	116	96.3	100
TOTAL ORGANIC CARBON AS NPOC	MG/L	0.50		1.9 u	1.8	1.6	1.3	1.7	0.83 u	0.98
TOTAL ORGANIC CARBON, DIS	MG/L	0.97 1qu		2.1 2qu	2.0 1q	1.9 2qu	1.5 2qu	1.7 u	1.4 1qu	1.3 1q
TURBIDITY, FIELD NTU	NTU	4		6	4	5	5		6	1
WATER ELEVATION	FEET	809.75		806.1	805.95	805.62	812.23		806.07	805.76

NOTES:

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**LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - PLUME WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014**

PARAMETER	UNITS	RM-402XXD 3/26/2014 4093883004	RM-402XXD 6/27/2014 4098976005
ALKALINITY AS CaCO ₃ , TOTAL	MG/L	339	364
CARBON DIOXIDE, FIELD	MG/L	25	40
CHLORIDE	MG/L	37.6	25.2
COLOR, FIELD		NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	775	818
DEHALOBACTER	CELLS/BD		
DEHALOCOCCOIDES	CELLS/BD		
DEPTH TO WATER	FEET	36.61	31.57
DISSOLVED OXYGEN, FIELD	MG/L	4.63	2.42
EH, FIELD	MV	125	301
ETHANE	UG/L	< 0.58	< 0.58
ETHENE	UG/L	< 0.52	< 0.52
IRON, FERROUS, FIELD	MG/L	0	0
IRON, TOTAL	UG/L	< 36.2	< 4.4
MANGANESE, FIELD	MG/L	0	0
MANGANESE, TOTAL	UG/L	0.61 J	< 0.18
METHANE	UG/L	< 1.4	< 1.4
NITROGEN, NITRATE + NITRITE	MG/L	11.8	14.0
ODOR, FIELD		NONE	NONE
PH, FIELD	SU	7.26	6.78
SULFATE, TOTAL	MG/L	24.5	29.5
SULFIDE, FIELD	MG/L	0	0
TEMPERATURE	DEG C	6.1	9.7
TOTAL INORGANIC CARBON	MG/L	95.2	100
TOTAL ORGANIC CARBON AS NPOC	MG/L	0.80	1.9
TOTAL ORGANIC CARBON, DIS	MG/L	0.78 u	2.3 2qu
TURBIDITY, FIELD NTU	NTU	4	8
WATER ELEVATION	FEET	805.61	810.65

NOTES:

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Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - LL WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	LH-06 5/29/2014 4097237003	LH-07 5/29/2014 4097237001	LW-01 5/29/2014 4097237002	LW-07 5/29/2014 4097237004	RM-005S 10/29/2013 4087680005	RM-206S 10/29/2013 4087680007	RM-207S 10/25/2013 4087680002	RM-208S 10/25/2013 4087680003	RM-301S 10/29/2013 4087680006
1,1,1-TRICHLOROETHANE	UG/L	0.72 J	< 0.50	< 0.50	< 0.50	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.25	< 0.25	< 0.25	< 0.25	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
1,1,2-TRICHLOROETHANE	UG/L	< 0.16	< 0.16	< 0.16	< 0.16	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
1,1-DICHLOROETHANE	UG/L	31.3	< 0.18	< 0.18	1.5	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
1,1-DICHLOROETHENE	UG/L	< 0.41	< 0.41	< 0.41	< 0.41	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
1,2-DICHLOROETHANE	UG/L	1.1	< 0.17	< 0.17	< 0.17	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
1,2-DICHLOROPROPANE	UG/L	< 0.23	< 0.23	< 0.23	< 0.23	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-BUTANONE	UG/L	< 3.0	< 3.0	< 3.0	< 3.0	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7
2-HEXANONE	UG/L	< 1.1	< 1.1	< 1.1	< 1.1	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
4-METHYL-2-PENTANONE	UG/L	< 2.1	< 2.1	< 2.1	< 2.1	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3
ACETONE	UG/L	7.5 J	< 3.0	< 3.0	< 3.0	< 2.6	3.7 Ju	3.0 Ju	3.0 Ju	< 2.6
BENZENE	UG/L	0.98 J	< 0.50	< 0.50	9.2	< 0.50	< 0.50	0.69 J	0.62 J	< 0.50
BROMODICHLOROMETHANE	UG/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
BROMOFORM	UG/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
BROMOMETHANE	UG/L	< 2.4	< 2.4	< 2.4	< 2.4	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
CARBON DISULFIDE	UG/L	< 0.51	< 0.51	< 0.51	< 0.51	< 0.71 L3	< 0.71 L3	< 0.71 L3	< 0.71 L3	< 0.71 L3
CARBON TETRACHLORIDE	UG/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
CHLORO BENZENE	UG/L	< 0.50	< 0.50	0.82 J	< 0.50	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
CHLORODIBROMOMETHANE	UG/L	< 0.32	< 0.32	< 0.32	< 0.32	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9
CHLOROETHANE	UG/L	< 0.37	< 0.37	< 0.37	31.3	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
CHLOROFORM	UG/L	< 2.5	< 2.5	< 2.5	< 2.5	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
CHLOROMETHANE	UG/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
CIS-1,2-DICHLOROETHENE	UG/L	293	< 0.26	< 0.26	< 0.26 HS	0.43 J	< 0.42	< 0.42	< 0.42	< 0.42
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29
ETHYLBENZENE	UG/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
METHYLENE CHLORIDE	UG/L	2.6	< 0.23	< 0.23	1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
STYRENE	UG/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
TETRACHLOROETHENE	UG/L	1.1	< 0.50	< 0.50	< 0.50	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47
TOLUENE	UG/L	0.90 J	< 0.50	< 0.50	< 0.50	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
TRANS-1,2-DICHLOROETHENE	UG/L	1.8	< 0.24	< 0.24	< 0.24	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
TRANS-1,3-DICHLOROPROPENE	UG/L	< 0.23	< 0.23	< 0.23	< 0.23	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
TRICHLOROETHENE	UG/L	1.7	< 0.33	< 0.33	< 0.33	1.1	< 0.36	< 0.36	< 0.36	< 0.36
VINYL CHLORIDE	UG/L	12.8	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
XYLENE, TOTAL	UG/L	< 1.5	< 1.5	< 1.5	26.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - LL WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-302S	RM-302S	RM-302S DUP
		10/25/2013 4087680001	5/29/2014 4097237005	10/25/2013 4087680004
1,1,1-TRICHLOROETHANE	UG/L	< 0.44	< 0.50	< 0.44
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.38	< 0.25	< 0.38
1,1,2-TRICHLOROETHANE	UG/L	< 0.39	< 0.16	< 0.39
1,1-DICHLOROETHANE	UG/L	< 0.28	< 0.18	< 0.28
1,1-DICHLOROETHENE	UG/L	< 0.43	< 0.41	< 0.43
1,2-DICHLOROETHANE	UG/L	< 0.48	< 0.17	< 0.48
1,2-DICHLOROPROPANE	UG/L	< 0.50	< 0.23	< 0.50
2-BUTANONE	UG/L	< 2.7	< 3.0	< 2.7
2-HEXANONE	UG/L	< 2.5	< 1.1	< 2.5
4-METHYL-2-PENTANONE	UG/L	< 2.3	< 2.1	< 2.3
ACETONE	UG/L	< 2.6	< 3.0	< 2.6
BENZENE	UG/L	< 0.50	< 0.50	< 0.50
BROMODICHLOROMETHANE	UG/L	< 0.45	< 0.50	< 0.45
BROMOFORM	UG/L	< 0.33	< 0.50	< 0.33
BROMOMETHANE	UG/L	< 0.43	< 2.4	< 0.43
CARBON DISULFIDE	UG/L	< 0.71 L3	< 0.51	< 0.71 L3
CARBON TETRACHLORIDE	UG/L	< 0.37	< 0.50	< 0.37
CHLOROBENZENE	UG/L	< 0.36	< 0.50	< 0.36
CHLORODIBROMOMETHANE	UG/L	< 1.9	< 0.32	< 1.9
CHLOROETHANE	UG/L	< 0.44	< 0.37	< 0.44
CHLOROFORM	UG/L	< 0.69	< 2.5	< 0.69
CHLOROMETHANE	UG/L	< 0.39	< 0.50	< 0.39
CIS-1,2-DICHLOROETHENE	UG/L	< 0.42	< 0.26	< 0.42
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.29	< 0.50	< 0.29
ETHYLBENZENE	UG/L	< 0.50	< 0.50	< 0.50
METHYLENE CHLORIDE	UG/L	< 0.36	< 0.23	< 0.36
STYRENE	UG/L	< 0.35	< 0.50	< 0.35
TETRACHLOROETHENE	UG/L	< 0.47	< 0.50	< 0.47
TOLUENE	UG/L	< 0.44	< 0.50	< 0.44
TRANS-1,2-DICHLOROETHENE	UG/L	< 0.37	< 0.24	< 0.37
TRANS-1,3-DICHLOROPROPENE	UG/L	< 0.30	< 0.23	< 0.30
TRICHLOROETHENE	UG/L	< 0.36	< 0.33	< 0.36
VINYL CHLORIDE	UG/L	< 0.18	< 0.18	< 0.18
XYLENE, TOTAL	UG/L	< 1.3	< 1.5	< 1.3

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**LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - LL WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014**

PARAMETER	UNITS	LH-06 5/29/2014 4097237003	LH-07 5/29/2014 4097237001	LW-01 5/29/2014 4097237002	LW-07 5/29/2014 4097237004	RM-005S 10/29/2013 4087680005	RM-206S 10/29/2013 4087680007	RM-207S 10/25/2013 4087680002	RM-208S 10/25/2013 4087680003
COLOR, FIELD		NONE	NONE	NONE	NONE	NONE	BROWN	NONE	BLACK
CONDUCTANCE, SPECIFIC	UMHOS/CM	710	819	853	2940	894	1338	1020	1053
DEPTH TO LEACHATE	FEET	25.00	26.82	26.32	17.00				
DEPTH TO WATER	FEET					8.61	11.41	10.48	13.37
DISSOLVED OXYGEN, FIELD	MG/L	0.71	1.09	1.14	0.88	0.57	1.19	0.20	2.89
EH, FIELD	MV	25	-41	-63	0.54	2	-41	-110	-52
LEACHATE HEAD ELEVATION	FEET	854.09	847.71	844.37	826.34				
ODOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	SEWER
PH, FIELD	SU	7.04	6.93	6.92	6.30	7.34	7.60	7.21	7.12
TEMPERATURE	DEG C	10.6	10.2	10.2	9.9	11.3	11.9	11.6	10.2
TURBIDITY, FIELD NTU	NTU	15	12	18	22	7	291	7	1000 E
WATER ELEVATION	FEET					835.4	833.71	829.46	826
WELL DRY									

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - LL WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	RM-301S 10/29/2013 4087680006	RM-302S 10/25/2013 4087680001	RM-302S 5/29/2014 4097237005
COLOR, FIELD		NONE	NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	926	1010	837
DEPTH TO LEACHATE	FEET			
DEPTH TO WATER	FEET	14.89	5.34	4.42
DISSOLVED OXYGEN, FIELD	MG/L	1.07	0.94	1.12
EH, FIELD	MV	106	36	113
LEACHATE HEAD ELEVATION	FEET			
ODOR, FIELD		NONE	NONE	NONE
PH, FIELD	SU	7.30	7.21	7.10
TEMPERATURE	DEG C	11.2	12.6	10.7
TURBIDITY, FIELD NTU	NTU	17	2	0
WATER ELEVATION	FEET	846.76	849.73	850.65
WELL DRY				

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - RESIDENTIAL WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	GR-08 LL 9/17/2013 365481	GR-09 9/17/2013 4085170010	GR-09 3/31/2014 4094062005	GR-09 LL 9/17/2013 365482	GR-10 9/17/2013 4085170007	GR-10 3/27/2014 4093885002	GR-10 DUP 3/27/2014 4093885007	GR-10 LL 9/17/2013 365479	GR-11 9/16/2013 4085170001	GR-11 3/31/2014 4094062004
1,1,1-TRICHLOROETHANE	UG/L		< 0.44	< 0.50		< 0.44	< 0.44	< 0.50		< 0.44	< 0.50
1,1,2,2-TETRACHLOROETHANE	UG/L		< 0.38	< 0.25		< 0.38	< 0.38	< 0.25		< 0.38	< 0.25
1,1,2-TRICHLOROETHANE	UG/L		< 0.39	< 0.16		< 0.39	< 0.39	< 0.16		< 0.39	< 0.16
1,1-DICHLOROETHANE	UG/L		< 0.28	< 0.16		< 0.28	< 0.28	< 0.16		< 0.28	< 0.16
1,1-DICHLOROETHENE	UG/L		< 0.43	< 0.41		< 0.43	< 0.43	< 0.41		< 0.43	< 0.41
1,2-DICHLOROETHANE	UG/L		< 0.48	< 0.17		< 0.48	< 0.48	< 0.17		< 0.48	< 0.17
1,2-DICHLOROPROPANE	UG/L		< 0.50	< 0.23		< 0.50	< 0.50	< 0.23		< 0.50	< 0.23
2-BUTANONE	UG/L		< 2.7	< 3.0		< 2.7	< 2.7	< 3.0		< 2.7	< 3.0
2-HEXANONE	UG/L		< 2.5	< 1.1		< 2.5	< 2.5	< 1.1		< 2.5	< 1.1
4-METHYL-2-PENTANONE	UG/L		< 2.3	< 2.1		< 2.3	< 2.3	< 2.1		< 2.3	< 2.1
ACETONE	UG/L		< 2.6	< 3.0		< 2.6	< 2.6	< 3.0		< 2.6	< 3.0
BENZENE	UG/L		< 0.50	< 0.50		< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
BROMODICHLOROMETHANE	UG/L		< 0.45	< 0.50		< 0.45	< 0.45	< 0.50		< 0.45	< 0.50
BROMOFORM	UG/L		< 0.33	< 0.50		< 0.33	< 0.33	< 0.50		< 0.33	< 0.50
BROMOMETHANE	UG/L		< 0.43	< 2.4		< 0.43	< 0.43	< 2.4		< 0.43	< 2.4
CARBON DISULFIDE	UG/L		< 0.71	< 0.51		< 0.71	< 0.71	< 0.51		< 0.71	< 0.51
CARBON TETRACHLORIDE	UG/L		< 0.37	< 0.50		< 0.37	< 0.37	< 0.50		< 0.37	< 0.50
CHLOROBENZENE	UG/L		< 0.36	< 0.50		< 0.36	< 0.36	< 0.50		< 0.36	< 0.50
CHLORODIBROMOMETHANE	UG/L		< 1.9	< 0.32		< 1.9	< 1.9	< 0.32		< 1.9	< 0.32
CHLOROETHANE	UG/L		< 0.44	< 0.37		< 0.44	< 0.44	< 0.37		< 0.44	< 0.37
CHLOROFORM	UG/L		< 0.69	< 2.5		< 0.69	< 0.69	< 2.5		< 0.69	< 2.5
CHLOROMETHANE	UG/L		< 0.39	< 0.50		< 0.39	< 0.39	< 0.50		< 0.39	< 0.50
CIS-1,2-DICHLOROETHENE	UG/L		< 0.42	< 0.26		< 0.42	< 0.42	< 0.26		< 0.42	< 0.26
CIS-1,3-DICHLOROPROPENE	UG/L		< 0.29	< 0.15		< 0.29	< 0.29	< 0.15		< 0.29	< 0.15
ETHYLBENZENE	UG/L		< 0.50	< 0.50		< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
METHYLENE CHLORIDE	UG/L		< 0.36	< 0.23		< 0.36	< 0.36	< 0.23		< 0.36	< 0.23
STYRENE	UG/L		< 0.35	< 0.15		< 0.35	< 0.35	< 0.15		< 0.35	< 0.15
TETRACHLOROETHENE	UG/L		< 0.47	< 0.50		< 0.47	< 0.47	< 0.50		< 0.47	< 0.50
TOLUENE	UG/L		< 0.44	< 0.50		< 0.44	< 0.44	< 0.50		< 0.44	< 0.50
TRANS-1,2-DICHLOROETHENE	UG/L		< 0.37	< 0.24		< 0.37	< 0.37	< 0.24		< 0.37	< 0.24
TRANS-1,3-DICHLOROPROPENE	UG/L		< 0.30	< 0.23		< 0.30	< 0.30	< 0.23		< 0.30	< 0.23
TRICHLOROETHENE	UG/L		< 0.36	< 0.33		< 0.36	< 0.36	< 0.33		< 0.36	< 0.33
VINYL CHLORIDE	UG/L	< 0.014	< 0.18	< 0.18	< 0.014	< 0.18	< 0.18	< 0.18	< 0.014	< 0.18	< 0.18
XYLENE, TOTAL	UG/L		< 1.3	< 1.5		< 1.3	< 1.3	< 1.5		< 1.3	< 1.5

NOTES:

Laboratory data qualifiers are included in the laboratory reports in Appendix F. See specific laboratory report for Sample Delivery Group (SDG) definition. Data validation qualifiers are listed below.

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u = Analyte is present at less than 10 times the concentration in the associated trip, field, storage, and/or laboratory method blank (B) for common laboratory contaminants, or at less than 5 times the blank concentration of other compounds and is therefore qualified as nondetectable (u) according to USEPA data validation procedures.

Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - RESIDENTIAL WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	GR-11 LL 9/16/2013 365484	GR-12 9/16/2013 4085170004	GR-12 3/27/2014 4093885003	GR-12 LL 9/16/2013 365487	GR-13 9/23/2013 4085428002	GR-13 3/31/2014 4094062002	GR-13 DUP 9/23/2013 4085428004	GR-13 DUP 3/31/2014 4094062006	GR-13 LL 9/23/2013 370165	GR-13 LL DUP 9/23/2013 370167
1,1,1-TRICHLOROETHANE	UG/L		< 0.44	< 0.44		< 0.44	< 0.50	< 0.44	< 0.50		
1,1,2,2-TETRACHLOROETHANE	UG/L		< 0.38	< 0.38		< 0.38	< 0.25	< 0.38	< 0.25		
1,1,2-TRICHLOROETHANE	UG/L		< 0.39	< 0.39		< 0.39	< 0.16	< 0.39	< 0.16		
1,1-DICHLOROETHANE	UG/L		< 0.28	< 0.28		0.33 J	0.33 J	0.31 J	0.34 J		
1,1-DICHLOROETHENE	UG/L		< 0.43	< 0.43		< 0.43	< 0.41	< 0.43	< 0.41		
1,2-DICHLOROETHANE	UG/L		< 0.48	< 0.48		< 0.48	< 0.17	< 0.48	< 0.17		
1,2-DICHLOROPROPANE	UG/L		< 0.50	< 0.50		< 0.50	< 0.23	< 0.50	< 0.23		
2-BUTANONE	UG/L		< 2.7	< 2.7		< 2.7	< 3.0	< 2.7	< 3.0		
2-HEXANONE	UG/L		< 2.5	< 2.5		< 2.5	< 1.1	< 2.5	< 1.1		
4-METHYL-2-PENTANONE	UG/L		< 2.3	< 2.3		< 2.3	< 2.1	< 2.3	< 2.1		
ACETONE	UG/L		< 2.6	< 2.6		< 2.6	< 3.0	< 2.6	< 3.0		
BENZENE	UG/L		< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50		
BROMODICHLOROMETHANE	UG/L		< 0.45	< 0.45		< 0.45	< 0.50	< 0.45	< 0.50		
BROMOFORM	UG/L		< 0.33	< 0.33		< 0.33	< 0.50	< 0.33	< 0.50		
BROMOMETHANE	UG/L		< 0.43	< 0.43		< 0.43	< 2.4	< 0.43	< 2.4		
CARBON DISULFIDE	UG/L		< 0.71	< 0.71		< 0.71	< 0.51	< 0.71	< 0.51		
CARBON TETRACHLORIDE	UG/L		< 0.37	< 0.37		< 0.37	< 0.50	< 0.37	< 0.50		
CHLORO BENZENE	UG/L		< 0.36	< 0.36		< 0.36	< 0.50	< 0.36	< 0.50		
CHLORODIBROMOMETHANE	UG/L		< 1.9	< 1.9		< 1.9	< 0.32	< 1.9	< 0.32		
CHLOROETHANE	UG/L		< 0.44	< 0.44		< 0.44	< 0.37	< 0.44	< 0.37		
CHLOROFORM	UG/L		< 0.69	< 0.69		< 0.69	< 2.5	< 0.69	< 2.5		
CHLOROMETHANE	UG/L		< 0.39	< 0.39		< 0.39	< 0.50	< 0.39	< 0.50		
CIS-1,2-DICHLOROETHENE	UG/L		< 0.42	< 0.42		< 0.42	< 0.26	< 0.42	< 0.26		
CIS-1,3-DICHLOROPROPENE	UG/L		< 0.29	< 0.29		< 0.29	< 0.15	< 0.29	< 0.15		
ETHYLBENZENE	UG/L		< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50		
METHYLENE CHLORIDE	UG/L		< 0.36	< 0.36		< 0.36	< 0.23	< 0.36	< 0.23		
STYRENE	UG/L		< 0.35	< 0.35		< 0.35	< 0.15	< 0.35	< 0.15		
TETRACHLOROETHENE	UG/L		< 0.47	< 0.47		< 0.47	< 0.50	< 0.47	< 0.50		
TOLUENE	UG/L		< 0.44	< 0.44		< 0.44	< 0.50	< 0.44	< 0.50		
TRANS-1,2-DICHLOROETHENE	UG/L		< 0.37	< 0.37		< 0.37	< 0.24	< 0.37	< 0.24		
TRANS-1,3-DICHLOROPROPENE	UG/L		< 0.30	< 0.30		< 0.30	< 0.23	< 0.30	< 0.23		
TRICHLOROETHENE	UG/L		< 0.36	< 0.36		< 0.36	< 0.33	< 0.36	< 0.33		
VINYL CHLORIDE	UG/L	< 0.014	< 0.18	< 0.18	< 0.014	< 0.18	< 0.18	< 0.18	< 0.18	< 0.014	< 0.014
XYLENE, TOTAL	UG/L		< 1.3	< 1.3		< 1.3	< 1.5	< 1.3	< 1.5		

NOTES:

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the blank concentration of other compounds and is therefore qualified as nondetectable (u) according to USEPA data validation procedures.

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LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - RESIDENTIAL WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	GR-14 9/25/2013 4085428005	GR-14 LL 9/25/2013 370168	GR-16 9/23/2013 4085428001	GR-16 LL 9/23/2013 370164	GR-26 9/16/2013 4085170003	GR-26 3/27/2014 4093885001	GR-26 DUP 9/16/2013 4085170005	GR-26 LL 9/16/2013 365486	GR-26 LL DUP 9/16/2013 365488	GR-27 9/18/2013 4085170014
1,1,1-TRICHLOROETHANE	UG/L	< 0.44		< 0.44		< 0.44	< 0.50	< 0.44			< 0.44
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.38		< 0.38		< 0.38	< 0.25	< 0.38			< 0.38
1,1,2-TRICHLOROETHANE	UG/L	< 0.39		< 0.39		< 0.39	< 0.16	< 0.39			< 0.39
1,1-DICHLOROETHANE	UG/L	< 0.28		< 0.28		< 0.28	< 0.16	< 0.28			< 0.28
1,1-DICHLOROETHENE	UG/L	< 0.43		< 0.43		< 0.43	< 0.41	< 0.43			< 0.43
1,2-DICHLOROETHANE	UG/L	< 0.48		< 0.48		< 0.48	< 0.17	< 0.48			< 0.48
1,2-DICHLOROPROPANE	UG/L	< 0.50		< 0.50		< 0.50	< 0.23	< 0.50			< 0.50
2-BUTANONE	UG/L	< 2.7		< 2.7		< 2.7	< 3.0	< 2.7			< 2.7
2-HEXANONE	UG/L	< 2.5		< 2.5		< 2.5	< 1.1	< 2.5			< 2.5
4-METHYL-2-PENTANONE	UG/L	< 2.3		< 2.3		< 2.3	< 2.1	< 2.3			< 2.3
ACETONE	UG/L	< 2.6		< 2.6		< 2.6	< 3.0	< 2.6			< 2.6
BENZENE	UG/L	< 0.50		< 0.50		< 0.50	< 0.50	< 0.50			< 0.50
BROMODICHLOROMETHANE	UG/L	< 0.45		< 0.45		< 0.45	< 0.50	< 0.45			< 0.45
BROMOFORM	UG/L	< 0.33		< 0.33		< 0.33	< 0.50	< 0.33			< 0.33
BROMOMETHANE	UG/L	< 0.43		< 0.43		< 0.43	< 2.4	< 0.43			< 0.43
CARBON DISULFIDE	UG/L	< 0.71		< 0.71		< 0.71	< 0.51	< 0.71			< 0.71
CARBON TETRACHLORIDE	UG/L	< 0.37		< 0.37		< 0.37	< 0.50	< 0.37			< 0.37
CHLOROBENZENE	UG/L	< 0.36		< 0.36		< 0.36	< 0.50	< 0.36			< 0.36
CHLORODIBROMOMETHANE	UG/L	< 1.9		< 1.9		< 1.9	< 0.32	< 1.9			< 1.9
CHLOROETHANE	UG/L	< 0.44		< 0.44		< 0.44	< 0.37	< 0.44			< 0.44
CHLOROFORM	UG/L	< 0.69		< 0.69		< 0.69	< 2.5	< 0.69			< 0.69
CHLOROMETHANE	UG/L	< 0.39		< 0.39		< 0.39	< 0.50	< 0.39			< 0.39
CIS-1,2-DICHLOROETHENE	UG/L	< 0.42		< 0.42		< 0.42	< 0.26	< 0.42			< 0.42
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.29		< 0.29		< 0.29	< 0.15	< 0.29			< 0.29
ETHYLBENZENE	UG/L	< 0.50		< 0.50		< 0.50	< 0.50	< 0.50			< 0.50
METHYLENE CHLORIDE	UG/L	< 0.36		< 0.36		< 0.36	< 0.23	< 0.36			< 0.36
STYRENE	UG/L	< 0.35		< 0.35		< 0.35	< 0.15	< 0.35			< 0.35
TETRACHLOROETHENE	UG/L	< 0.47		< 0.47		< 0.47	< 0.50	< 0.47			< 0.47
TOLUENE	UG/L	< 0.44		< 0.44		< 0.44	< 0.50	< 0.44			< 0.44
TRANS-1,2-DICHLOROETHENE	UG/L	< 0.37		< 0.37		< 0.37	< 0.24	< 0.37			< 0.37
TRANS-1,3-DICHLOROPROPENE	UG/L	< 0.30		< 0.30		< 0.30	< 0.23	< 0.30			< 0.30
TRICHLOROETHENE	UG/L	< 0.36		< 0.36		< 0.36	< 0.33	< 0.36			< 0.36
VINYL CHLORIDE	UG/L	< 0.18	< 0.014	< 0.18	< 0.014	< 0.18	< 0.18	< 0.18	< 0.014	< 0.014	< 0.18
XYLENE, TOTAL	UG/L	< 1.3		< 1.3		< 1.3	< 1.5	< 1.3			< 1.3

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Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - RESIDENTIAL WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	GR-27 LL 9/18/2013 365493	GR-30 9/18/2013 4085170013	GR-30 DUP 9/18/2013 4085170016	GR-30 LL 9/18/2013 365492	GR-30 LL DUP 9/18/2013 365495	GR-60R 9/16/2013 4085170002	GR-60R LL 9/16/2013 365485	GR-62 9/23/2013 4085428003	GR-62 3/31/2014 4094062003	GR-62 LL 9/23/2013 370166
1,1,1-TRICHLOROETHANE	UG/L		< 0.44	< 0.44			< 0.44		< 0.44	< 0.50	
1,1,2,2-TETRACHLOROETHANE	UG/L		< 0.38	< 0.38			< 0.38		< 0.38	< 0.25	
1,1,2-TRICHLOROETHANE	UG/L		< 0.39	< 0.39			< 0.39		< 0.39	< 0.16	
1,1-DICHLOROETHANE	UG/L		< 0.28	< 0.28			< 0.28		< 0.28	< 0.16	
1,1-DICHLOROETHENE	UG/L		< 0.43	< 0.43			< 0.43		< 0.43	< 0.41	
1,2-DICHLOROETHANE	UG/L		< 0.48	< 0.48			< 0.48		< 0.48	< 0.17	
1,2-DICHLOROPROPANE	UG/L		< 0.50	< 0.50			< 0.50		< 0.50	< 0.23	
2-BUTANONE	UG/L		< 2.7	< 2.7			< 2.7		< 2.7	< 3.0	
2-HEXANONE	UG/L		< 2.5	< 2.5			< 2.5		< 2.5	< 1.1	
4-METHYL-2-PENTANONE	UG/L		< 2.3	< 2.3			< 2.3		< 2.3	< 2.1	
ACETONE	UG/L		< 2.6	< 2.6			< 2.6		< 2.6	< 3.0	
BENZENE	UG/L		< 0.50	< 0.50			< 0.50		< 0.50	< 0.50	
BROMODICHLOROMETHANE	UG/L		< 0.45	< 0.45			< 0.45		< 0.45	< 0.50	
BROMOFORM	UG/L		< 0.33	< 0.33			< 0.33		< 0.33	< 0.50	
BROMOMETHANE	UG/L		< 0.43	< 0.43			< 0.43		< 0.43	< 2.4	
CARBON DISULFIDE	UG/L		< 0.71	< 0.71			< 0.71		< 0.71	< 0.51	
CARBON TETRACHLORIDE	UG/L		< 0.37	< 0.37			< 0.37		< 0.37	< 0.50	
CHLOROBENZENE	UG/L		< 0.36	< 0.36			< 0.36		< 0.36	< 0.50	
CHLORODIBROMOMETHANE	UG/L		< 1.9	< 1.9			< 1.9		< 1.9	< 0.32	
CHLOROETHANE	UG/L		< 0.44	< 0.44			< 0.44		< 0.44	< 0.37	
CHLOROFORM	UG/L		< 0.69	< 0.69			< 0.69		< 0.69	< 2.5	
CHLOROMETHANE	UG/L		< 0.39	< 0.39			< 0.39		< 0.39	< 0.50	
CIS-1,2-DICHLOROETHENE	UG/L		< 0.42	< 0.42			< 0.42		< 0.42	< 0.26	
CIS-1,3-DICHLOROPROPENE	UG/L		< 0.29	< 0.29			< 0.29		< 0.29	< 0.15	
ETHYLBENZENE	UG/L		< 0.50	< 0.50			< 0.50		< 0.50	< 0.50	
METHYLENE CHLORIDE	UG/L		< 0.36	< 0.36			< 0.36		< 0.36	< 0.23	
STYRENE	UG/L		< 0.35	< 0.35			< 0.35		< 0.35	< 0.15	
TETRACHLOROETHENE	UG/L		< 0.47	< 0.47			< 0.47		< 0.47	< 0.50	
TOLUENE	UG/L		< 0.44	< 0.44			< 0.44		< 0.44	< 0.50	
TRANS-1,2-DICHLOROETHENE	UG/L		< 0.37	< 0.37			< 0.37		< 0.37	< 0.24	
TRANS-1,3-DICHLOROPROPENE	UG/L		< 0.30	< 0.30			< 0.30		< 0.30	< 0.23	
TRICHLOROETHENE	UG/L		< 0.36	< 0.36			< 0.36		< 0.36	< 0.33	
VINYL CHLORIDE	UG/L	< 0.014	< 0.18	< 0.18	< 0.014	< 0.014	< 0.18	< 0.014	< 0.18	< 0.18	< 0.014
XYLENE, TOTAL	UG/L		< 1.3	< 1.3			< 1.3		< 1.3	< 1.5	

NOTES:

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Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - RESIDENTIAL WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	GR-63 9/18/2013 4085170011	GR-63 3/27/2014 4093885006	GR-63 LL 9/18/2013 365490	GR-64 9/18/2013 4085170015	GR-64 3/27/2014 4093885004	GR-64 LL 9/18/2013 365494	GR-65 9/17/2013 4085170008	GR-65 LL 9/17/2013 365480	GR-66 10/17/2013 4086941001	GR-66 3/31/2014 4094062001
1,1,1-TRICHLOROETHANE	UG/L	< 0.44	< 0.50		< 0.44	< 0.44		< 0.44		< 0.44	< 0.50
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.38	< 0.25		< 0.38	< 0.38		< 0.38		< 0.38	< 0.25
1,1,2-TRICHLOROETHANE	UG/L	< 0.39	< 0.16		< 0.39	< 0.39		< 0.39		< 0.39	< 0.16
1,1-DICHLOROETHANE	UG/L	< 0.28	< 0.16		< 0.28	< 0.28		< 0.28		< 0.28	< 0.16
1,1-DICHLOROETHENE	UG/L	< 0.43	< 0.41		< 0.43	< 0.43		< 0.43		< 0.43	< 0.41
1,2-DICHLOROETHANE	UG/L	< 0.48	< 0.17		< 0.48	< 0.48		< 0.48		< 0.48	< 0.17
1,2-DICHLOROPROPANE	UG/L	< 0.50	< 0.23		< 0.50	< 0.50		< 0.50		< 0.50	< 0.23
2-BUTANONE	UG/L	< 2.7	< 3.0		< 2.7	< 2.7		< 2.7		< 2.7	< 3.0
2-HEXANONE	UG/L	< 2.5	< 1.1		< 2.5	< 2.5		< 2.5		< 2.5	< 1.1
4-METHYL-2-PENTANONE	UG/L	< 2.3	< 2.1		< 2.3	< 2.3		< 2.3		< 2.3	< 2.1
ACETONE	UG/L	< 2.6	< 3.0		< 2.6	< 2.6		< 2.6		< 2.6	< 3.0
BENZENE	UG/L	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50		< 0.50	< 0.50
BROMODICHLOROMETHANE	UG/L	< 0.45	< 0.50		< 0.45	< 0.45		< 0.45		< 0.45	< 0.50
BROMOFORM	UG/L	< 0.33	< 0.50		< 0.33	< 0.33		< 0.33		< 0.33	< 0.50
BROMOMETHANE	UG/L	< 0.43	< 2.4		< 0.43	< 0.43		< 0.43		< 0.43	< 2.4
CARBON DISULFIDE	UG/L	< 0.71	< 0.51		< 0.71	< 0.71		< 0.71		< 0.71	< 0.51
CARBON TETRACHLORIDE	UG/L	< 0.37	< 0.50		< 0.37	< 0.37		< 0.37		< 0.37	< 0.50
CHLOROBENZENE	UG/L	< 0.36	< 0.50		< 0.36	< 0.36		< 0.36		< 0.36	< 0.50
CHLORODIBROMOMETHANE	UG/L	< 1.9	< 0.32		< 1.9	< 1.9		< 1.9		< 1.9	< 0.32
CHLOROETHANE	UG/L	< 0.44	< 0.37		< 0.44	< 0.44		< 0.44		< 0.44	< 0.37
CHLOROFORM	UG/L	< 0.69	< 2.5		< 0.69	< 0.69		< 0.69		< 0.69	< 2.5
CHLOROMETHANE	UG/L	< 0.39	< 0.50		< 0.39	< 0.39		< 0.39		< 0.39	< 0.50
CIS-1,2-DICHLOROETHENE	UG/L	< 0.42	< 0.26		< 0.42	< 0.42		< 0.42		< 0.42	< 0.26
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.29	< 0.15		< 0.29	< 0.29		< 0.29		< 0.29	< 0.15
ETHYLBENZENE	UG/L	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50		< 0.50	< 0.50
METHYLENE CHLORIDE	UG/L	< 0.36	< 0.23		< 0.36	< 0.36		< 0.36		< 0.36	< 0.23
STYRENE	UG/L	< 0.35	< 0.15		< 0.35	< 0.35		< 0.35		< 0.35	< 0.15
TETRACHLOROETHENE	UG/L	< 0.47	< 0.50		< 0.47	< 0.47		< 0.47		< 0.47	< 0.50
TOLUENE	UG/L	< 0.44	< 0.50		< 0.44	< 0.44		< 0.44		< 0.44	< 0.50
TRANS-1,2-DICHLOROETHENE	UG/L	< 0.37	< 0.24		< 0.37	< 0.37		< 0.37		< 0.37	< 0.24
TRANS-1,3-DICHLOROPROPENE	UG/L	< 0.30	< 0.23		< 0.30	< 0.30		< 0.30		< 0.30	< 0.23
TRICHLOROETHENE	UG/L	< 0.36	< 0.33		< 0.36	< 0.36		< 0.36		< 0.36	< 0.33
VINYL CHLORIDE	UG/L	< 0.18	< 0.18	< 0.014	< 0.18	< 0.18	< 0.014	< 0.18	< 0.014	< 0.18	< 0.18
XYLENE, TOTAL	UG/L	< 1.3	< 1.5		< 1.3	< 1.3		< 1.3		< 1.3	< 1.5

NOTES:

Laboratory data qualifiers are included in the laboratory reports in Appendix F. See specific laboratory report for Sample Delivery Group (SDG) definition. Data validation qualifiers are listed below.

j = The reported result is considered estimated.

u = Analyte is present at less than 10 times the concentration in the associated trip, field, storage, and/or laboratory method blank (B) for common laboratory contaminants, or at less than 5 times the blank concentration of other compounds and is therefore qualified as nondetectable (u) according to USEPA data validation procedures.

Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - RESIDENTIAL WELLS
VOLATILE ORGANIC COMPOUNDS
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	GR-66 LL 10/17/2013 384436	GR-73 9/18/2013 4085170012	GR-73 5/2/2014 4095767001	GR-73 LL 9/18/2013 365491	GR-74 10/9/2013 4086359001	GR-74 5/2/2014 4095767002	GR-74 LL 10/9/2013 384435
1,1,1-TRICHLOROETHANE	UG/L		< 0.44	< 0.50		< 0.44	< 0.50	
1,1,2,2-TETRACHLOROETHANE	UG/L		< 0.38	< 0.25		< 0.38	< 0.25	
1,1,2-TRICHLOROETHANE	UG/L		< 0.39	< 0.16		< 0.39	< 0.16	
1,1-DICHLOROETHANE	UG/L		< 0.28	< 0.16		< 0.28	< 0.16	
1,1-DICHLOROETHENE	UG/L		< 0.43	< 0.41		< 0.43	< 0.41	
1,2-DICHLOROETHANE	UG/L		< 0.48	< 0.17		< 0.48	< 0.17	
1,2-DICHLOROPROPANE	UG/L		< 0.50	< 0.23		< 0.50	< 0.23	
2-BUTANONE	UG/L		< 2.7	< 3.0		< 2.7	< 3.0	
2-HEXANONE	UG/L		< 2.5	< 1.1		< 2.5	< 1.1	
4-METHYL-2-PENTANONE	UG/L		< 2.3	< 2.1		< 2.3	< 2.1	
ACETONE	UG/L		< 2.6	< 3.0		< 2.6	< 3.0	
BENZENE	UG/L		< 0.50	< 0.50		< 0.50	< 0.50	
BROMODICHLOROMETHANE	UG/L		< 0.45	< 0.50		< 0.45	< 0.50	
BROMOFORM	UG/L		< 0.33	< 0.50		< 0.33	< 0.50	
BROMOMETHANE	UG/L		< 0.43	< 2.4		< 0.43	< 2.4	
CARBON DISULFIDE	UG/L		< 0.71	< 0.51		< 0.71	< 0.51	
CARBON TETRACHLORIDE	UG/L		< 0.37	< 0.50		< 0.37	< 0.50	
CHLOROBENZENE	UG/L		< 0.36	< 0.50		< 0.36	< 0.50	
CHLORODIBROMOMETHANE	UG/L		< 1.9	< 0.32		< 1.9	< 0.32	
CHLOROETHANE	UG/L		< 0.44	< 0.37		< 0.44	< 0.37	
CHLOROFORM	UG/L		< 0.69	< 2.5		< 0.69	< 2.5	
CHLOROMETHANE	UG/L		< 0.39	< 0.50		< 0.39	< 0.50	
CIS-1,2-DICHLOROETHENE	UG/L		< 0.42	< 0.26		< 0.42	< 0.26	
CIS-1,3-DICHLOROPROPENE	UG/L		< 0.29	< 0.15		< 0.29	< 0.15	
ETHYLBENZENE	UG/L		< 0.50	< 0.50		< 0.50	< 0.50	
METHYLENE CHLORIDE	UG/L		< 0.36	< 0.23		< 0.36	< 0.23	
STYRENE	UG/L		< 0.35	< 0.15		< 0.35	< 0.15	
TETRACHLOROETHENE	UG/L		< 0.47	< 0.50		< 0.47	< 0.50	
TOLUENE	UG/L		< 0.44	< 0.50		< 0.44	< 0.50	
TRANS-1,2-DICHLOROETHENE	UG/L		< 0.37	< 0.24		< 0.37	< 0.24	
TRANS-1,3-DICHLOROPROPENE	UG/L		< 0.30	< 0.23		< 0.30	< 0.23	
TRICHLOROETHENE	UG/L		< 0.36	< 0.33		< 0.36	< 0.33	
VINYL CHLORIDE	UG/L	< 0.014	< 0.18	< 0.18	< 0.014	< 0.18	< 0.18	< 0.014
XYLENE, TOTAL	UG/L		< 1.3	< 1.5		< 1.3	< 1.5	

NOTES:

Laboratory data qualifiers are included in the laboratory reports in Appendix F. See specific laboratory report for Sample Delivery Group (SDG) definition. Data validation qualifiers are listed below.

j = The reported result is considered estimated.

u = Analyte is present at less than 10 times the concentration in the associated trip, field, storage, and/or laboratory method blank (B) for common laboratory contaminants, or at less than 5 times the blank concentration of other compounds and is therefore qualified as nondetectable (u) according to USEPA data validation procedures.

Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - RESIDENTIAL WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	GR-08	GR-08	GR-09	GR-09	GR-10	GR-10	GR-11	GR-11	GR-12
		9/17/2013 4085170009	3/27/2014 4093885005	9/17/2013 4085170010	3/31/2014 4094062005	9/17/2013 4085170007	3/27/2014 4093885002	9/16/2013 4085170001	3/31/2014 4094062004	9/16/2013 4085170004
ALUMINUM, TOTAL	UG/L									
ARSENIC, TOTAL	UG/L									
CADMIUM, TOTAL	UG/L									
CALCIUM, TOTAL	UG/L									
CHROMIUM, TOTAL	UG/L									
COBALT, TOTAL	UG/L									
COLOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	524	523	512	503	706	765	547	542	554
COPPER, TOTAL	UG/L									
DEPTH TO WATER	FEET									
IRON, TOTAL	UG/L									
LEAD, TOTAL	UG/L									
MAGNESIUM, TOTAL	UG/L									
MANGANESE, TOTAL	UG/L									
NICKEL, TOTAL	UG/L									
ODOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
PH, FIELD	SU	7.69	7.92	7.70	8.02	7.88	7.97	7.83	7.85	7.73
STRONTIUM, TOTAL	UG/L									
TEMPERATURE	DEG C	11.4	7.6	11.7	7.1	11.4	7.4	11.2	7.2	11.9
TURBIDITY, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
TURBIDITY, FIELD NTU	NTU									
VANADIUM, TOTAL	UG/L									
WATER ELEVATION	FEET									
WELL OTHER										
ZINC, TOTAL	UG/L									

NOTES:

Laboratory data qualifiers are included in the laboratory reports in Appendix F. See specific laboratory report for Sample Delivery Group (SDG) definition. Data validation qualifiers are listed below.

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u = Analyte is present at less than 10 times the concentration in the associated trip, field, storage, and/or laboratory method blank (B) for common laboratory contaminants, or at less than 5 times the blank concentration of other compounds and is therefore qualified as nondetectable (u) according to USEPA data validation procedures.

Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - RESIDENTIAL WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

		GR-12	GR-13	GR-13	GR-14	GR-14	GR-16	GR-26	GR-26	GR-27
		3/27/2014	9/23/2013	3/31/2014	9/25/2013	5/2/2014	9/23/2013	9/16/2013	3/27/2014	9/18/2013
PARAMETER	UNITS	4093885003	4085428002	4094062002	4085428005	4095767-X01	4085428001	4085170003	4093885001	4085170014
ALUMINUM, TOTAL	UG/L									
ARSENIC, TOTAL	UG/L									
CADMIUM, TOTAL	UG/L									
CALCIUM, TOTAL	UG/L									
CHROMIUM, TOTAL	UG/L									
COBALT, TOTAL	UG/L									
COLOR, FIELD		NONE	NONE	NONE	NONE		NONE	NONE	NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	554	573	574	566		610	563	566	588
COPPER, TOTAL	UG/L									
DEPTH TO WATER	FEET							37.44	37.14	
IRON, TOTAL	UG/L									
LEAD, TOTAL	UG/L									
MAGNESIUM, TOTAL	UG/L									
MANGANESE, TOTAL	UG/L									
NICKEL, TOTAL	UG/L									
ODOR, FIELD		NONE	NONE	NONE	NONE		NONE	NONE	NONE	NONE
PH, FIELD	SU	7.92	7.82	8.12	7.86		7.77	7.38	7.27	7.54
STRONTIUM, TOTAL	UG/L									
TEMPERATURE	DEG C	7.2	9.4	7.5	11.2		11.9	9.5	9.1	11.2
TURBIDITY, FIELD		NONE	NONE	NONE	NONE		NONE	NONE	NONE	NONE
TURBIDITY, FIELD NTU	NTU									
VANADIUM, TOTAL	UG/L									
WATER ELEVATION	FEET									
WELL OTHER						00000				
ZINC, TOTAL	UG/L									

NOTES:

Laboratory data qualifiers are included in the laboratory reports in Appendix F. See specific laboratory report for Sample Delivery Group (SDG) definition. Data validation qualifiers are listed below.

j = The reported result is considered estimated.

u = Analyte is present at less than 10 times the concentration in the associated trip, field, storage, and/or laboratory method blank (B) for common laboratory contaminants, or at less than 5 times the blank concentration of other compounds and is therefore qualified as nondetectable (u) according to USEPA data validation procedures.

Non-detect results are reported as "< Limit of Detection (LOD)"

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - RESIDENTIAL WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	GR-30 9/18/2013 4085170013	GR-60R 9/16/2013 4085170002	GR-62 9/23/2013 4085428003	GR-62 3/31/2014 4094062003	GR-63 9/18/2013 4085170011	GR-63 3/27/2014 4093885006	GR-64 9/18/2013 4085170015	GR-64 3/27/2014 4093885004	GR-65 9/17/2013 4085170008
ALUMINUM, TOTAL	UG/L									
ARSENIC, TOTAL	UG/L									
CADMIUM, TOTAL	UG/L									
CALCIUM, TOTAL	UG/L									
CHROMIUM, TOTAL	UG/L									
COBALT, TOTAL	UG/L									
COLOR, FIELD		NONE	NONE	NONE	LT BROWN	NONE	LT BROWN	NONE	NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	659	714	508	463	556	522	569	566	625
COPPER, TOTAL	UG/L									
DEPTH TO WATER	FEET		7.28							
IRON, TOTAL	UG/L									
LEAD, TOTAL	UG/L									
MAGNESIUM, TOTAL	UG/L									
MANGANESE, TOTAL	UG/L									
NICKEL, TOTAL	UG/L									
ODOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
PH, FIELD	SU	7.38	7.24	7.90	7.52	7.54	7.87	7.63	8.08	7.71
STRONTIUM, TOTAL	UG/L									
TEMPERATURE	DEG C	11.3	9.7	10.8	7.6	10.6	6.0	11.8	7.0	11.1
TURBIDITY, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
TURBIDITY, FIELD NTU	NTU									
VANADIUM, TOTAL	UG/L									
WATER ELEVATION	FEET									
WELL OTHER										
ZINC, TOTAL	UG/L									

NOTES:

Laboratory data qualifiers are included in the laboratory reports in Appendix F. See specific laboratory report for Sample Delivery Group (SDG) definition. Data validation qualifiers are listed below:

j = The reported result is considered estimated.

u = Analyte is present at less than 10 times the concentration in the associated trip, field, storage, and/or laboratory method blank (B) for common laboratory contaminants, or at less than 5 times the blank concentration of other compounds and is therefore qualified as nondetectable (u) according to USEPA data validation procedures.

Non-detect results are reported as "< Limit of Detection (LOD)".

LEMBERGER LANDFILL
GROUNDWATER ANALYTICAL DATA - RESIDENTIAL WELLS
INDICATOR PARAMETERS AND FIELD DATA
FOR REPORTING PERIOD JULY 2013 THROUGH JUNE 2014

PARAMETER	UNITS	GR-66 10/17/2013 4086941001	GR-66 3/31/2014 4094062001	GR-73 9/18/2013 4085170012	GR-73 5/2/2014 4095767001	GR-74 10/9/2013 4086359001	GR-74 12/24/2013 4090503001	GR-74 5/2/2014 4095767002
ALUMINUM, TOTAL	UG/L						< 71.4	
ARSENIC, TOTAL	UG/L						6.6 J	
CADMIUM, TOTAL	UG/L						0.69 J	
CALCIUM, TOTAL	UG/L						81100	
CHROMIUM, TOTAL	UG/L						< 1.4	
COBALT, TOTAL	UG/L						0.94 J	
COLOR, FIELD		NONE	NONE	NONE	NONE	NONE		NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	579	548	572	576	671		671
COPPER, TOTAL	UG/L						43.6	
DEPTH TO WATER	FEET					10.90		
IRON, TOTAL	UG/L						12800	
LEAD, TOTAL	UG/L						< 2.7	
MAGNESIUM, TOTAL	UG/L						42000	
MANGANESE, TOTAL	UG/L						213	
NICKEL, TOTAL	UG/L						6.0 J	
ODOR, FIELD		NONE	NONE	NONE	NONE	NONE		NONE
PH, FIELD	SU	7.66	7.82	7.46	7.88	7.43		7.67
STRONTIUM, TOTAL	UG/L						352	
TEMPERATURE	DEG C	8.8	7.8	9.8	8.4	10.1		7.6
TURBIDITY, FIELD		NONE	NONE	NONE	NONE			NONE
TURBIDITY, FIELD NTU	NTU					14		
VANADIUM, TOTAL	UG/L						< 1.7	
WATER ELEVATION	FEET							
WELL OTHER								
ZINC, TOTAL	UG/L						25.0 J	

NOTES:

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Non-detect results are reported as "< Limit of Detection (LOD)"

Attachment 8 – Site Inspection Checklist

Site Inspection Checklist

I. SITE INFORMATION	
Site name: <u>Lemberger Landfill & LTR</u>	Date of inspection: <u>6-11-15</u>
Location and Region: <u>Town of Franklin, WI</u>	EPA ID: <u>W1D054247208 & W1D980901243</u>
Agency, office, or company leading the five-year review: <u>USEPA</u>	Weather/temperature: <u>mild 60s</u>
Remedy Includes: (Check all that apply) <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 45%;"> <input checked="" type="checkbox"/> Landfill cover/containment <input checked="" type="checkbox"/> Access controls <input checked="" type="checkbox"/> Institutional controls <input checked="" type="checkbox"/> Groundwater pump and treatment <input checked="" type="checkbox"/> Surface water collection and treatment <input type="checkbox"/> Other _____ </div> <div style="width: 45%;"> <input type="checkbox"/> Monitored natural attenuation <input checked="" type="checkbox"/> Groundwater containment <input checked="" type="checkbox"/> Vertical barrier walls </div> </div>	
Attachments: <input type="checkbox"/> Inspection team roster attached <input type="checkbox"/> Site map attached	

II. INTERVIEWS (Check all that apply)

1. **O&M site manager** mark

Name Title Date
Interviewed ☒ at site ☐ at office ☐ by phone Phone no. _____
Problems, suggestions; ☐ Report attached None

2. **O&M staff** _____
Name Title Date
Interviewed: ☐ at site ☐ at office ☐ by phone Phone no. _____
Problems, suggestions; ☐ Report attached _____

3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency WPAIR mr
Contact Kodir Mct
Name Title Date Phone no.
Problems; suggestions; ☐ Report attached _____

Agency _____
Contact _____
Name Title Date Phone no.
Problems; suggestions; ☐ Report attached _____

Agency _____
Contact _____
Name Title Date Phone no.
Problems; suggestions; ☐ Report attached _____

Agency _____
Contact _____
Name Title Date Phone no.
Problems; suggestions; ☐ Report attached _____

4. **Other interviews (optional)** ☐ Report attached.

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)				
1.	O&M Documents <input type="checkbox"/> O&M manual <input type="checkbox"/> As-built drawings <input type="checkbox"/> Maintenance logs Remarks _____	<input type="checkbox"/> Readily available <input checked="" type="checkbox"/> Readily available <input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date <input checked="" type="checkbox"/> Up to date <input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A <input type="checkbox"/> N/A
2.	Site-Specific Health and Safety Plan <input type="checkbox"/> Contingency plan/emergency response plan Remarks _____	<input checked="" type="checkbox"/> Readily available <input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date <input type="checkbox"/> Up to date	<input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A
3.	O&M and OSHA Training Records Remarks _____	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
4.	Permits and Service Agreements <input type="checkbox"/> Air discharge permit <input type="checkbox"/> Effluent discharge <input type="checkbox"/> Waste disposal, POTW <input type="checkbox"/> Other permits _____ Remarks _____	<input type="checkbox"/> Readily available <input type="checkbox"/> Readily available <input type="checkbox"/> Readily available <input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date <input type="checkbox"/> Up to date <input type="checkbox"/> Up to date <input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A
5.	Gas Generation Records Remarks _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
6.	Settlement Monument Records Remarks _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
7.	Groundwater Monitoring Records Remarks _____	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
8.	Leachate Extraction Records Remarks _____	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
9.	Discharge Compliance Records <input type="checkbox"/> Air <input type="checkbox"/> Water (effluent) Remarks _____	<input type="checkbox"/> Readily available <input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date <input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A
10.	Daily Access/Security Logs Remarks _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A

IV. O&M COSTS

1. **O&M Organization**

- | | |
|--|--|
| <input type="checkbox"/> State in-house | <input type="checkbox"/> Contractor for State |
| <input checked="" type="checkbox"/> PRP in-house | <input type="checkbox"/> Contractor for PRP |
| <input type="checkbox"/> Federal Facility in-house | <input type="checkbox"/> Contractor for Federal Facility |
| <input type="checkbox"/> Other _____ | |

2. **O&M Cost Records**

- ☒ Readily available ☐ Up to date
☐ Funding mechanism/agreement in place
 Original O&M cost estimate _____ ☐ Breakdown attached

Total annual cost by year for review period if available

From _____	To _____			<input type="checkbox"/> Breakdown attached
Date	Date	Total cost		
From _____	To _____			<input type="checkbox"/> Breakdown attached
Date	Date	Total cost		
From _____	To _____			<input type="checkbox"/> Breakdown attached
Date	Date	Total cost		
From _____	To _____			<input type="checkbox"/> Breakdown attached
Date	Date	Total cost		
From _____	To _____			<input type="checkbox"/> Breakdown attached
Date	Date	Total cost		

3. **Unanticipated or Unusually High O&M Costs During Review Period**

Describe costs and reasons: _____

V. ACCESS AND INSTITUTIONAL CONTROLS <input type="checkbox"/> Applicable <input type="checkbox"/> N/A							
A. Fencing							
1.	Fencing damaged Remarks _____	<input type="checkbox"/> Location shown on site map <input type="checkbox"/> Gates secured <input type="checkbox"/> N/A	Good				
B. Other Access Restrictions							
1.	Signs and other security measures Remarks _____	<input type="checkbox"/> Location shown on site map <input type="checkbox"/> N/A	Good				
C. Institutional Controls (ICs)							
1.	Implementation and enforcement Site conditions imply ICs not properly implemented <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A Site conditions imply ICs not being fully enforced <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A Type of monitoring (e.g., self-reporting, drive by) _____ Frequency _____ Responsible party/agency _____ Contact _____ <table style="width: 100%; margin-top: 5px;"> <tr> <td style="width: 40%; text-align: center;">Name</td> <td style="width: 20%; text-align: center;">Title</td> <td style="width: 20%; text-align: center;">Date</td> <td style="width: 20%; text-align: center;">Phone no.</td> </tr> </table> Reporting is up-to-date <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Reports are verified by the lead agency <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Specific requirements in deed or decision documents have been met <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Violations have been reported <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Other problems or suggestions: <input type="checkbox"/> Report attached _____ _____ _____			Name	Title	Date	Phone no.
Name	Title	Date	Phone no.				
2.	Adequacy <input checked="" type="checkbox"/> ICs are adequate <input type="checkbox"/> ICs are inadequate <input type="checkbox"/> N/A Remarks _____ _____ _____						
D. General							
1.	Vandalism/trespassing <input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> No vandalism evident Remarks _____ _____						
2.	Land use changes on site <input checked="" type="checkbox"/> N/A Remarks _____ _____						

3.	Land use changes off site <input checked="" type="checkbox"/> N/A Remarks _____ _____
VI. GENERAL SITE CONDITIONS	
A. Roads <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A	
1.	Roads damaged <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Roads adequate <input type="checkbox"/> N/A Remarks _____ _____
B. Other Site Conditions	
Remarks _____ _____ _____ _____ _____	
VII. LANDFILL COVERS <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A	
A. Landfill Surface	
1.	Settlement (Low spots) <input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> Settlement not evident Areal extent _____ Depth _____ Remarks _____ _____
2.	Cracks <input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> Cracking not evident Lengths _____ Widths _____ Depths _____ Remarks _____ _____
3.	Erosion <input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> Erosion not evident Areal extent _____ Depth _____ Remarks _____ _____
4.	Holes <input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> Holes not evident Areal extent _____ Depth _____ Remarks _____ _____
5.	Vegetative Cover <input type="checkbox"/> Grass <input type="checkbox"/> Cover properly established <input checked="" type="checkbox"/> No signs of stress <input type="checkbox"/> Trees/Shrubs (indicate size and locations on a diagram) Remarks _____ _____
6.	Alternative Cover (armored rock, concrete, etc.) <input checked="" type="checkbox"/> N/A Remarks _____ _____

7.	Bulges Areal extent _____ Remarks _____	<input type="checkbox"/> Location shown on site map Height _____	<input checked="" type="checkbox"/> Bulges not evident
8.	Wet Areas/Water Damage <input type="checkbox"/> Wet areas <input type="checkbox"/> Ponding <input type="checkbox"/> Seeps <input type="checkbox"/> Soft subgrade Remarks _____	<input checked="" type="checkbox"/> Wet areas/water damage not evident <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Location shown on site map	Areal extent _____ Areal extent _____ Areal extent _____ Areal extent _____
9.	Slope Instability Areal extent _____ Remarks _____	<input type="checkbox"/> Slides <input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> No evidence of slope instability
B. Benches <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A (Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)			
1.	Flows Bypass Bench Remarks _____	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> N/A or okay
2.	Bench Breached Remarks _____	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> N/A or okay
3.	Bench Overtopped Remarks _____	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> N/A or okay
C. Letdown Channels <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A (Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)			
1.	Settlement Areal extent _____ Remarks _____	<input type="checkbox"/> Location shown on site map Depth _____	<input checked="" type="checkbox"/> No evidence of settlement
2.	Material Degradation Material type _____ Remarks _____	<input type="checkbox"/> Location shown on site map Areal extent _____	<input checked="" type="checkbox"/> No evidence of degradation
3.	Erosion Areal extent _____ Remarks _____	<input type="checkbox"/> Location shown on site map Depth _____	<input checked="" type="checkbox"/> No evidence of erosion

4.	Undercutting Areal extent _____ Depth _____ Remarks _____	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> No evidence of undercutting
5.	Obstructions Type _____ <input type="checkbox"/> Location shown on site map Areal extent _____ Size _____ Remarks _____	<input checked="" type="checkbox"/> No obstructions	
6.	Excessive Vegetative Growth Type _____ <input checked="" type="checkbox"/> No evidence of excessive growth <input type="checkbox"/> Vegetation in channels does not obstruct flow <input type="checkbox"/> Location shown on site map Areal extent _____ Remarks _____		
D. Cover Penetrations <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A			
1.	Gas Vents <input type="checkbox"/> Active <input type="checkbox"/> Passive <input checked="" type="checkbox"/> Properly secured/locked <input checked="" type="checkbox"/> Functioning <input checked="" type="checkbox"/> Routinely sampled <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> Evidence of leakage at penetration <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks _____		
2.	Gas Monitoring Probes <input type="checkbox"/> Properly secured/locked <input type="checkbox"/> Functioning <input type="checkbox"/> Routinely sampled <input type="checkbox"/> Good condition <input type="checkbox"/> Evidence of leakage at penetration <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks _____		
3.	Monitoring Wells (within surface area of landfill) <input checked="" type="checkbox"/> Properly secured/locked <input checked="" type="checkbox"/> Functioning <input checked="" type="checkbox"/> Routinely sampled <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> Evidence of leakage at penetration <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks _____		
4.	Leachate Extraction Wells <input checked="" type="checkbox"/> Properly secured/locked <input checked="" type="checkbox"/> Functioning <input checked="" type="checkbox"/> Routinely sampled <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> Evidence of leakage at penetration <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks _____	<i>as of 2014</i>	
5.	Settlement Monuments <input type="checkbox"/> Located <input type="checkbox"/> Routinely surveyed <input checked="" type="checkbox"/> N/A Remarks _____		
E. Gas Collection and Treatment <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A			
1.	Gas Treatment Facilities <input type="checkbox"/> Flaring <input type="checkbox"/> Thermal destruction <input type="checkbox"/> Collection for reuse <input type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance Remarks _____		

2.	Gas Collection Wells, Manifolds and Piping <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance Remarks _____ _____	
3.	Gas Monitoring Facilities (e.g., gas monitoring of adjacent homes or buildings) <input type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance <input checked="" type="checkbox"/> N/A Remarks _____ _____	
F. Cover Drainage Layer <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A		
1.	Outlet Pipes Inspected <input type="checkbox"/> Functioning <input type="checkbox"/> N/A Remarks _____ _____	
2.	Outlet Rock Inspected <input type="checkbox"/> Functioning <input type="checkbox"/> N/A Remarks _____ _____	
G. Detention/Sedimentation Ponds <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A		
1.	Siltation Areal extent _____ Depth _____ <input type="checkbox"/> N/A <input type="checkbox"/> Siltation not evident Remarks _____ _____	
2.	Erosion Areal extent _____ Depth _____ <input type="checkbox"/> Erosion not evident Remarks _____ _____	
3.	Outlet Works <input type="checkbox"/> Functioning <input type="checkbox"/> N/A Remarks _____ _____	
4.	Dam <input type="checkbox"/> Functioning <input type="checkbox"/> N/A Remarks _____ _____	
H. Retaining Walls <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A		
1.	Deformations <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Deformation not evident Horizontal displacement _____ Vertical displacement _____ Rotational displacement _____ Remarks _____ _____	
2.	Degradation <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Degradation not evident Remarks _____ _____	
I. Perimeter Ditches/Off-Site Discharge <input checked="" type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A		
1.	Siltation <input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> Siltation not evident Areal extent _____ Depth _____ Remarks _____ _____	

2.	Vegetative Growth <input checked="" type="checkbox"/> Vegetation does not impede flow Areal extent _____ Type _____ Remarks _____	<input type="checkbox"/> Location shown on site map <input type="checkbox"/> N/A	
3.	Erosion Areal extent _____ Depth _____ Remarks _____	<input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> Erosion not evident	
4.	Discharge Structure <input checked="" type="checkbox"/> Functioning <input type="checkbox"/> N/A Remarks _____		
VIII. VERTICAL BARRIER WALLS <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A			
1.	Settlement Areal extent _____ Depth _____ Remarks _____	<input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> Settlement not evident	
2.	Performance Monitoring Type of monitoring <i>not monitored since 2014</i> <input checked="" type="checkbox"/> Performance not monitored Frequency _____ <input type="checkbox"/> Evidence of breaching Head differential _____ ✓ Remarks _____		
IX. GROUNDWATER/SURFACE WATER REMEDIES <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A			
A. Groundwater Extraction Wells, Pumps, and Pipelines <input type="checkbox"/> Applicable <input type="checkbox"/> N/A			
1.	Pumps, Wellhead Plumbing, and Electrical <input type="checkbox"/> Good condition <input type="checkbox"/> All required wells properly operating <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks _____		
2.	Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances <input type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance Remarks _____		
3.	Spare Parts and Equipment <input type="checkbox"/> Readily available <input type="checkbox"/> Good condition <input type="checkbox"/> Requires upgrade <input type="checkbox"/> Needs to be provided Remarks _____		
B. Surface Water Collection Structures, Pumps, and Pipelines <input type="checkbox"/> Applicable <input type="checkbox"/> N/A			
1.	Collection Structures, Pumps, and Electrical <input type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance Remarks _____		

2.	Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances <input type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance Remarks _____ _____
3.	Spare Parts and Equipment <input type="checkbox"/> Readily available <input type="checkbox"/> Good condition <input type="checkbox"/> Requires upgrade <input type="checkbox"/> Needs to be provided Remarks _____ _____
C. Treatment System <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A <i>not operating</i>	
1.	Treatment Train (Check components that apply) <input type="checkbox"/> Metals removal <input type="checkbox"/> Oil/water separation <input type="checkbox"/> Bioremediation <input type="checkbox"/> Air stripping <input type="checkbox"/> Carbon adsorbers <input type="checkbox"/> Filters _____ <input type="checkbox"/> Additive (e.g., chelation agent, flocculent) _____ <input type="checkbox"/> Others _____ <input type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> Sampling ports properly marked and functional <input type="checkbox"/> Sampling/maintenance log displayed and up to date <input type="checkbox"/> Equipment properly identified <input type="checkbox"/> Quantity of groundwater treated annually _____ <input type="checkbox"/> Quantity of surface water treated annually _____ Remarks _____ _____
2.	Electrical Enclosures and Panels (properly rated and functional) <input type="checkbox"/> N/A <input type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance Remarks _____ _____
3.	Tanks, Vaults, Storage Vessels <input type="checkbox"/> N/A <input type="checkbox"/> Good condition <input type="checkbox"/> Proper secondary containment <input type="checkbox"/> Needs Maintenance Remarks _____ _____
4.	Discharge Structure and Appurtenances <input type="checkbox"/> N/A <input type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance Remarks _____ _____
5.	Treatment Building(s) <input type="checkbox"/> N/A <input type="checkbox"/> Good condition (esp. roof and doorways) <input type="checkbox"/> Needs repair <input type="checkbox"/> Chemicals and equipment properly stored Remarks _____ _____
6.	Monitoring Wells (pump and treatment remedy) <input type="checkbox"/> Properly secured/locked <input type="checkbox"/> Functioning <input type="checkbox"/> Routinely sampled <input type="checkbox"/> Good condition <input type="checkbox"/> All required wells located <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks _____ _____
D. Monitoring Data	
1.	Monitoring Data <input checked="" type="checkbox"/> Is routinely submitted on time <input type="checkbox"/> Is of acceptable quality

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future.

D. Opportunities for Optimization

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.
